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THE QUARTERLY JOURNAL OF ECONOMICS

VOL. XXXII AUGUST, 1918 No. 4.

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CAMBRIDGE, MASS., U.S.A.
HARVARD UNIVERSITY PRESS

LONDON: HUMPHREY MILFORD
OXFORD UNIVERSITY PRESS

1918

The Quarterly Journal of Economics

Published by Harvard University

Books, periodicals, and manuscript to be addressed, EDITORS of QUARTERLY JOURNAL OF ECONOMICS, Cambridge, Mass.

Business letters to be addressed, HARVARD UNIVERSITY PRESS, Randall Hall, Cambridge, Mass. Subscription, $3.00 a year.

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THE
QUARTERLY JOURNAL
OF
ECONOMICS

AUGUST, 1918

INTERNATIONAL TARIFF RELATIONS AS AFFECTED BY THE WAR

SUMMARY

I. Tariff discriminations, 547. — Classes of discriminations, 548. — II. Discriminations and bargaining, 549. — Penalty duties, 549. — Bargaining systems, 551. — Most-favored-nation clause, 552. — III. Discriminations based on national policies, 555. — American experiences, 556. — British preference, 559. — Preference in non-self-governing colonies, 561. — IV. Conclusions, 562. — Possibilities of international treatment, 565.

I. Tariff Discriminations

How high or how low the tariff duties of a nation shall be will continue for the immediate future at least to be a question for domestic determination. The need of the government for revenue, or the requirements of the people for food or raw materials, or the stage of industrial development in which the nation finds itself may each be a determining factor. No outside nation has a right to a voice in fixing the level of tariff duties which a people shall maintain at its border. Tariff discriminations and preferential duties, however, raise a question fundamentally different. These are matters of international concern. When a country places the products of one people on a more favorable tariff basis than

the products of another people, it has sown the seed of international ill-will. Plausible arguments in favor of special reciprocal arrangements do not alter the hard facts that a nation discriminated against by another has a grievance which it may nurse into a hatred. In a world where economic interests are inseparably interlocked, he is on the defensive who holds that inequalities in tariffs are not subjects for international discussion — perhaps for international decision.

Tariff discriminations for our purpose may, broadly speaking, be divided into two classes. In the first place, there are those which may be removed by nations bargaining among themselves. These discriminations appear in a variety of forms. Often they are found openly, in surtaxes. Sometimes they are concealed in tariff classifications where, under the guise of equality of treatment, tariff rates are made high on goods which are peculiarly the products of a disliked country and low on the goods which are the peculiar products of a friendly people. Sometimes they may exist in the administration of the customs regulations or in the enforcement of inspection and sanitary laws. Not infrequently they are found in tariff systems of nations which have adopted discriminatory tariff rates for the very purpose of providing a basis for bargaining with other nations for concessions. Such are the general and the maximum tariff schedules of certain European countries.

The second class of tariff discriminations includes those which cannot be removed by nations bargaining among themselves, such as preferential tariffs or national reciprocity systems which are expressions of the settled policies of peoples toward their colonies or toward other nations.

II. Discriminations and Bargaining

It is the clear duty of a nation so to organize its own economic power as to be in a position to bargain for the removal of discriminations falling within the first class. Discriminations falling within the second class — discriminations grounded in national policies — can perhaps be satisfactorily considered only in an international conference. But those of the first class raise no such complications. The fear of penalties is one of the best means of removing them. A nation unready to bargain for equality of treatment is no more likely to get it than a trader is likely to succeed in barter, if he has no goods to offer in return. The duty of a nation to protect itself in commercial matters cannot be escaped by attempting to turn over to an untried international organization the work of removing tariff discriminations. The international organization is desirable, but in seeking an international solution for tariff discriminations we must be slow to abandon such effective means of preventing discriminations as nations themselves may employ. Section 2 of the United States Tariff Act of 1909, altho defective in some important respects, suggests one method of enforcing equality of treatment. It provides for penalty duties to be applied to those nations which refuse most-favored-nation treatment. Perhaps more important are the bargaining tariff systems of European states. These systems, supplemented by the European interpretation of the most-favored-nation clause in commercial treaties, have been powerful factors in equalizing trade conditions and preventing trade wars.

Either of these bargaining methods may be employed by the United States. The first — the penalty duty method — can be adopted without a general revision

of the present tariff law and without a modification of our traditional attitude toward the most-favored-nation clause in commercial treaties; the second — the concession method — if adopted by the United States, will require a general revision of the tariff, and if all its benefits are desired, will require also the adoption of the European interpretation of the most-favored-nation clause.

The adoption of penalty duties has the limitations of any method which relies on threats, either open or veiled, for the accomplishment of its end. But in the hands of skillful negotiators such duties need not be the source of international friction. Their use should be specifically limited to removing discriminations and enforcing equality of treatment. Their use should never be extended to obtaining special privileges.

If it is desired in this country to supplement the existing tariff act with a section providing for penalty duties, the President might be given power to impose, by proclamation, an increase of duties limited to a specified percentage of the present duties either on all or on certain enumerated products when imported from any country which, in his judgment, discriminates against the goods of our manufacturers, or which fails to give us concessions in its markets equivalent to those given other nations. In the case of products now on the free list a maximum penalty duty might be provided for. Stated in another way, the President might be given power to suspend, by executive order, the privileges granted by the general tariff schedules to any nation which should refuse us equal treatment in its markets, and thereafter, the higher duties imposed by the bargaining section would become effective against the imports of such discriminating country. Altho limiting the increase in duties which the President might

impose, Congress should make the provision sufficiently flexible to permit the penalty being made to fit the offense. The President should be permitted to apply any rate below the maximum necessary to accomplish the purpose of the law. Under this plan, the general tariff rates of the Act of October 3, 1913, now in force, would constitute a sort of minimum tariff; the rates in the bargaining section would stand as a sort of maximum tariff. The President would inquire into the treatment given our goods in foreign markets. If he should find that in a given country our goods were not being discriminated against and that they were receiving equality of treatment, he would leave the present rates operative upon imports from that country. If, on the contrary, there were discriminations, and if equal treatment were not given, and if negotiations should not result in an adjustment which, in the judgment of the President, was equitable, he would then declare by proclamation that the higher rates were to be put into effect against the imports of the discriminating country.

If penalty duties do not seem desirable or adequate, European methods offer precedents for bargaining by means of tariff concessions. Two systems are distinguishable: the general and conventional, and the maximum and minimum tariffs.

The German tariff system offers the most conspicuous example of the former. It consists of a general tariff fixed by the legislature and a lower set of duties called the " conventional tariff " which are fixed by the executive branch of the government in bargaining with other nations and which are then embodied in treaties [1] running for a definite term of years. Thus binding herself

[1] In the German tariff there are a few minimum rates on agricultural products fixed by the legislative branch of the government.

by treaty to maintain certain rates, Germany surrenders for a time her right to change her tariff. She then extends these conventional rates to all nations entitled to receive from her most-favored-nation treatment. It is essential to the effective working of a general and conventional tariff that as soon as a concession is given by convention to one nation, it automatically accrues to the benefit of every other "favored" nation. The system thus tends to establish equality of treatment and to prevent nations from discriminating against each other. It has been a big factor in establishing harmonious tariff relations.

Our Federal constitution does not permit the adoption in this country of a tariff system which would vest in the executive branch of our government the power to fix, without limit, the effective tariff rates. The maximum and minimum tariff system, with possibly some modifications, is, therefore, more adapted to the needs of this country.

This system — of which the French tariff offers the best example — has a maximum tariff, similar to the general tariff referred to above but unlike it in that the legislative instead of the executive branch of the government determines the bargaining rates. Two rates are agreed upon for practically every article enumerated in the tariff act, and the lower or minimum rates are used in bargaining for concessions from other countries.

Altho not absolutely necessary to the effective operation of a maximum and minimum tariff system, the so-called unconditional form of the most-favored-nation clause is a desirable supplement to a plan which seeks to establish, by bargaining, equality of treatment. It guarantees that every nation, which by its conduct is entitled to most-favored-nation treatment, will receive it automatically.

The multiple tariff systems of Europe have some advantages over penalty duties in establishing equality of opportunity in international commercial relations. From a negotiating point of view, it is more effective to offer reduction in the rates of the regular tariff to those countries granting equal treatment than to threaten penalties if discriminations are not removed. The offer to reduce rates, which represent for the time being the settled policy of a country, in return for equal treatment, makes a greater appeal in international bargaining than a threat to impose an additional duty by way of penalty. If, in the future, it should seem wise to Congress to revise the tariff generally, maximum and minimum tariff schedules might be enacted, the latter to be granted to those countries which give to us most-favored-nation treatment.

The most-favored-nation clause in commercial treaties presents a difficult problem, particularly for the United States. From the very beginning of our national existence we have declined to interpret this clause as the nations of Europe now interpret it. Historically, perhaps, our position has been justified, but in any broad consideration of tariff discriminations and commercial treaties, we cannot escape facing the whole controversy over this clause.

In almost all the treaties of commerce and navigation which, before the war, covered the world with a veritable net-work there was found this most-favored-nation clause. It is essentially the corner stone of modern commercial treaties. Its chief forms and interpretations are known as the unconditional and the conditional.

The conditional form and interpretation have been adhered to chiefly by the United States. In all but a few exceptional instances we have contended that the clause

did not require us to grant concessions to a third nation unless the third nation granted similar or equivalent concessions in return. Following the rule of the Anglo-Saxon law of contracts we have insisted upon a consideration. Referring to the clause in our treaty with Denmark the United States Supreme Court said in 1887 that "it was never designed to prevent special concessions upon sufficient consideration." Our statesmen as well as our courts have regarded it not as an instrument of acquisition, not as a means of generalizing concessions, but as a preventive of discriminations and as a means of promising to other countries the opportunity to negotiate for concessions made to another state. From this position it was logical for us to use the clause in support of special reciprocity agreements.

Great Britain and most of the countries of Continental Europe have, on the contrary, held in recent years to the unconditional form and interpretation of the clause. In Europe, "its effect has been with few exceptions," as a British statesman pointed out, "that any given article is taxed in each country at practically one rate only." Its object is to generalize concessions, to guarantee that no country will be placed on a less favorable basis than another. It holds that concessions granted to one country are to be *immediately* and *unconditionally* extended to every other country entitled to most-favored-nation treatment.

Whether or not the United States frames its future tariffs upon the bargaining precedents of Europe, it would seem desirable to adopt the unconditional form and interpretation of the most-favored-nation clause and rewrite our commercial treaties in accordance therewith. If special reciprocity agreements must be justified in the future, we need not go to the most-favored-nation clause for that purpose. Some special

grounds can be alleged if the agreement is to stand at all. As long as we cling to our conditional form of the clause, we retain a ground for friction between ourselves and other nations, and we are deprived of one of the most effective means known to modern international commerce for establishing equality of treatment and international fair dealing.

III. Discriminations Based on National Policies

But when we have done all that we can in national legislation — when we have adopted a system of penalty or of bargaining duties and altered our position on the most-favored-nation clause, and when other nations have taken similar steps — there will yet remain some of the more fundamental and irritating tariff discriminations — those which bargaining between nations has failed to remove.

Special sentimental, political, and economic grounds are often set up to justify reciprocity treaties and colonial preferences. Even those countries which accept the unconditional most-favored-nation clause have insisted upon their right to make special tariff arrangements. Ordinary bargaining systems break down in these cases. A nation prejudiced by a preferential colonial tariff or an exclusive reciprocity treaty is frequently confronted with the dilemma of submitting to the discriminations or engaging in a trade war. In 1897 when Canada granted British goods a preference, Germany chose trade war, but she evidently concluded that it did not pay, for when the other self-governing dominions adopted preference, she chose to submit to the discrimination. The world has, therefore, reached a point in the consideration of tariff discriminations

where nations acting separately or bargaining in the ordinary isolated way, two by two, are not able to solve the problem.

American experiences with bargaining for exclusive favors are worthy of careful study by those seeking to frame a comprehensive program for handling international tariff problems.

The Tariff Act of 1890 contained a provision (Section 3) intended to secure for the products of the United States special tariff concessions in certain foreign markets. The President was given power to proclaim, without reference to Congress, specified penalty duties on raw sugar, molasses, coffee, tea, and hides imported from any country imposing duties, or other exactions, upon the products of the United States, which, in view of the free admission into the United States under the regular tariff of raw sugar, molasses, coffee, tea, and hides, he deemed to be "reciprocally unequal and unreasonable." Here was a device which gave the President power to place the goods of one nation on a less favorable basis in our market than the goods of other nations, should that nation refuse to grant to the United States special, altho not necessarily exclusive, privileges in its markets. Under this law the President concluded agreements with Brazil, with Spain for Cuba and Porto Rico, with the Dominican Republic, Salvador, and the German Empire, with Great Britain for the West India Colonies including Jamaica, Barbados, Trinidad (and Tobago), Leeward Islands (including Virgin Islands), Windward Islands (excluding Grenada), and British Guiana, and with Nicaragua, Honduras, Austria-Hungary, and Guatemala. All these agreements were terminated by the Tariff Act of August 27, 1894.

The United States Tariff Act of 1897 made provision for three kinds of reciprocal arrangements. In the

second part of Section 3 of that act is found a provision identical in form and principle with Section 3 of the Tariff Act of 1890. The President was given power to suspend the free admission of coffee, tea, vanilla beans and tonka beans and to proclaim specified penalty duties upon these commodities when coming from countries imposing upon the products of the United States duties, or other exactions, which, in view of the free admission of the specified products into the United States, the President deemed to be "reciprocally unequal and unreasonable." The penalty duties provided were to be used by the President in placing any country, from which the specified products came, on a less favorable basis than other nations, in case of refusal by that nation to grant to the United States special favors in its markets. This part of Section 3 led to no agreements, but it was a factor in enabling the United States to secure preferential treatment in the Brazilian market in 1904.

In the first part of Section 3 of the Act of 1897 is found a provision for negotiating reciprocity treaties on a different principle. The President was authorized in return for "reciprocal and equivalent concessions" to grant specified concessions in the duties on argols, brandies, sparkling and still wines, and paintings and statuary. Instead of using penalty duties, the principle is here introduced of making special reductions in the regular tariff rates on certain articles in return for equivalent and reciprocal reductions in the tariff rates of other countries. Agreements under this provision did not require the ratification of the Senate nor the approval of Congress. Agreements, known as the "Argol Agreements," were negotiated and proclaimed with France, Portugal, Germany, Italy, Switzerland, Spain, Bulgaria, the United Kingdom, and The Nether-

lands. In each case the United States granted special concessions in the regular tariff rates on specified articles, and received in return special, altho not necessarily exclusive, concessions from the other nations.

The third reciprocity provision (Section 4) in the Tariff Act of 1897 differs from each of those thus far considered, in that treaties negotiated under it had to be ratified by the Senate and approved by Congress before they became effective. Under it the President was authorized to negotiate for special, altho not necessarily exclusive, concessions in foreign markets and to concede in return a reduction in the duties of the tariff act of not more than 20 per centum of those duties, or to transfer to or agree to retain on the free list specified articles from any country making satisfactory concessions. Treaties known as the "Kasson Treaties" were negotiated with France, with Great Britain for the British West Indies, with Denmark for St. Croix, with the Dominican Republic, Nicaragua, Ecuador, and the Argentine Republic. These treaties failed of ratification in the Senate and, therefore, never became effective.

When the Tariff Act of 1909 was under consideration, Congress apparently decided that the bargaining methods of the Tariff Acts of 1890 and 1897 were not in line with sound policy. It did not reënact any of them. It abandoned them, not only in form but in principle. The bargaining section of the Tariff Act of 1909 does not seek to exact special privileges but merely seeks to bring about the equality of treatment of Americans and American products in foreign markets.

None of the treaties negotiated under the Tariff Acts of 1890 and 1897 are now in force. The sole surviving remnant is our preferential arrangement with Brazil, which is not a formal agreement at all. Section 3 of the Tariff Act of 1897 provided, it will be recalled, for a

penalty duty of three cents per pound on coffee. Brazil was particularly dependent upon this country for a market for her coffee. The same was true of her rubber. In 1904 our State Department suggested to Brazil that unless preferences were accorded to certain American products in Brazilian markets, the penalty duty on coffee would be proclaimed against her and steps would also be taken to impose a duty on rubber, which at that time was on the free list.

Wheat flour was the leading product upon which the American government requested a preferential rate. Negotiations finally resulted in a preference being granted to the United States in 1904 on it and on a few other products. Under the Brazilian law it was necessary for this preference to be renewed each year. It failed of renewal in 1905, but, with a few changes in the articles affected, it has been reënacted in the annual Brazilian budget each year since that time. The only preferential rate of any substantial importance is the reduction of 30 per cent in the duty on wheat flour.

The preferential tariffs of the British Empire are not distinguishable *in principle* from the Brazilian arrangement with the United States and the reciprocity experiences with which it is related.

Australia grants preferences to two political divisions of the British Empire, the United Kingdom and South Africa. In the case of the United Kingdom she grants a preference on 308 out of 428 items in the tariff. Generally speaking, the preferential rate is 5 per cent ad valorem below the general tariff. Machine tools, however, receive a 10 per cent preference and cutlery a 20 per cent preference. The basis for the preference granted to the South African Customs Union is the general tariff of 1908. This means a substantial preference, for the Australian Tariff Act of 1914 raised the

average rate on dutiable goods from 17.62 per cent to 32.26 per cent.

The preferential tariff of New Zealand is unique in two respects. In the first place, the preferential schedule is the general tariff; all goods from outside the British Empire pay a surtax. In the second place, the preference includes not only the goods from United Kingdom but all goods from other parts of the British Empire. Lastly, reciprocity agreements may be made with any British Dominion. The only agreement of this kind made as yet is with the South African Customs Union. As a result of these provisions the goods imported into New Zealand from the other parts of the British Empire are subjected to the regular tariff schedule; several products from South Africa, such as fish, maize, wine, tobacco, feathers, pay lower duties than those borne by similar products from any other British source; and goods imported from foreign countries pay a surtax varying from 10 to 100 per cent ad valorem above the rate at which British goods are admitted.

In the case of the South African Customs Union, the regular schedule applies to foreign goods and the preferential schedule to goods from the United Kingdom and from reciprocating British dominions; those dominions which have taken advantage of this reciprocal provision are Australia, New Zealand, and Canada. The preference granted to English goods and those of the reciprocating dominions averages only about 3 per cent, but it is applied to a wide range of imports, approximately 82 per cent of the total.

Canada provides three schedules on imports. The first is the preferential which applies to imports from the United Kingdom and in part to goods from the Bahamas, Bermuda, British Honduras, Grenada, Jamaica, and

Newfoundland. The second schedule contains the intermediate tariff, which applies to a large number of French, Belgian, Dutch, and Italian goods. The concessions granted under this intermediate schedule to foreign products were granted in return for reciprocal concessions to Canadian goods. The third schedule is regarded as the general tariff to which the imports from all foreign countries, as well as the imports from most of the British dominions and colonies, are subjected.

The United Kingdom itself grants no preferences whatever in return for those granted to her by her self-governing dominions. Since the outbreak of the war, however, a resolution has been adopted (February 2, 1917) by the Committee on Commercial and Industrial Policy of the House of Commons, a part of which is as follows: "We therefore recommend that H. M. Government should now declare their adherence to the principle that preference should be accorded to the products and manufactures of the British Overseas Dominions in respect of any Customs Duties now or hereafter to be imposed on imports into the United Kingdom."

If special reciprocity treaties between nations and preferential tariffs of the self-governing dominions of the British Empire are proper subjects for international consideration, so also are the tariff relations between a nation and its dependent colonies. The fact that the tariff of a colony is made by the mother-country justifies rather than imposes a barrier to international interference. If there is any one thing above all others that the present war should end forever, it is colonial monopoly and the exploitation of the less civilized parts of the earth in the interests of the business classes of the nations which have been fortunate enough to control those parts politically.

England, Germany, and Holland have, so far as tariffs are concerned, treated all goods alike in their dependent colonies. They have established no preferential tariffs in their own favor. At the Berlin Conference of 1885 equality of treatment in equatorial Africa was agreed to by the signatory powers. A similar agreement was made in 1906 applying the same rule to Morocco.

In some parts of the world, however, preferential arrangements are found between nations and their dependent colonies. Free trade exists between the United States and the Philippines, while all goods imported into the Philippines from other countries pay regular tariff duties. Portugal grants a few preferences to her colonial products and is favored by preferential rates on wines and liquors in the tariffs of her colonies. Some reciprocal concessions exist between Italy and her colonies which are denied other nations. France, perhaps more than any other nation, grants to and receives from her dependent colonies preferential tariff rates or the free admission of goods where others pay duties.

IV. Conclusions. Possibilities of International Treatment

The coming together of nations for the discussion of international economic problems is not new. Both the Berlin Conference of 1885 and the Algeciras Conference of 1906 are precedents which are not forgotten. A wide variety of economic questions will come before any conference which may meet at the end of the present war: — the control of shipping, the rights of vessels in foreign ports, export bounties in all forms, the distribution of raw materials, the definition of unfair methods of competition in international trade, the investment of capital

in backward countries and the control of concessions. Not the least among the important problems which should be faced and solved are the scope of the most-favored-nation clause in commercial treaties, the meaning of the "open door," the limitations upon nations in making special reciprocity treaties or in establishing preferential tariffs in colonies, the use that may be made of customs alliances, the principles upon which the tariffs of dependent colonies shall be made, and every similar question involving policies of using the tariff, directly or indirectly, for the purpose of discriminations.

So far as tariff discriminations may be subjects for international consideration, the purpose of this article is to state the problem rather than to solve it. Probably the first question which an international conference will have to face in considering reciprocity and preference will be whether or not these policies may be dealt with internationally at all. In spite of the fact that history argues insistently for international treatment, some may take the position that special reciprocity treaties between nations and preference between self-governing dominions or colonies and the mother-country are no concern of third parties.

This extreme position may be softened by the concession that unconditional most-favored-nation treatment should be adopted between nations, but it may still be insisted that preferential tariffs should be permitted between the political divisions of an empire; that sentimental and political ties should be admitted to be justifications for duties which discriminate against outsiders. This position seems untenable. If reciprocity between nations is a subject for international decision, so are preferential tariffs, justified by sentimental or political ties. If discriminations are defensible in one case, they are defensible in the other. What

is sauce for the goose is sauce for the gander. In considering the wider aspect of these discriminations and in analyzing their economic effect, it is not sufficient to say that special reciprocity treaties between nations are undesirable and to leave the subject of colonial preferences untouched. Reciprocity arrangements between two independent nations are no better (and no worse) than a preferential arrangement between Great Britain and her self-governing dominions, or between France and her distant dependent colonies. If special preferences, based upon political consideration, are undesirable in one case, they are undesirable in the others. From the standpoint of world peace there is as much propriety in Brazil granting a preference to the United States as there is in Canada or Australia granting a preference to Great Britain. Or to take another example, it is just as proper, internationally speaking, for the United States to levy penalty duties against certain countries for the purpose of getting special favors as it is for New Zealand to provide for a surtax on all foreign goods while granting to British goods the lower duties in the general tariff. Preferences between New Zealand and South Africa, or preferences between France and her distant colonies are not distinguishable *in principle* from reciprocity arrangements between independent nations.

The crucial question before an economic conference considering tariff discriminations will be: Shall unconditional most-favored-nation treatment be accepted as the principle to guide nations in their dealings, one with the other? If the answer to this question is in the negative, it will be a recognition of the right of every nation to make such special or exclusive tariff arrangements as it can. If the answer is in the affirmative, it would seem to follow that the self-governing dominions of an empire (which are, so far as fiscal policy is con-

cerned, " nations ") should accept the responsibility of " nations " within the meaning of the unconditional form of the most-favored-nation clause and further that in all dependent colonies there should be no tariff discriminations in favor of the mother-country.

It is much easier to lay down a general rule as to what is desirable in tariff relations between nations than it is to answer the question whether or not there shall be any exception to the general rule. If the general rule adopted as a guide in international dealings forbids tariff discriminations, plausible claims will be put forward for making exceptions in those cases where a particularly close economic relationship exists between peoples separated by political boundaries. Such cases will be comparatively few and each can be considered on its own merits. Care should be taken always to avoid making tariff discriminations a means of furthering a scheme of economic penetration and exploitation.

In addition to the formulation of principles which shall hereafter govern nations in their tariff relations, an economic conference should provide for the establishment of a permanent international tariff commission. In the past when bargaining between nations failed to remove discriminations, trade war was the last resort and it usually failed. No organization existed which could act as an arbiter and which was interested in the international aspect of the discrimination. But we have come to see that not only the nations directly involved, but every other nation in the world, is interested in the amicable adjustment of tariff difficulties. An international tariff commission, if it were merely a clearing house of information, would justify its existence. It might in addition be given power to investigate discriminations, or it might be assigned the duty of carrying out a plan agreed upon at an international conference.

Certainly the world needs an organization which will take up differences when ordinary bargaining methods fail, and which will propose a solution before the differences lead to hatred and hostility.

W. S. CULBERTSON.

UNITED STATES TARIFF COMMISSION,
WASHINGTON, D.C.

SUGAR PRICES AND DISTRIBUTION UNDER FOOD CONTROL

SUMMARY

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I

Has government regulation of prices and distribution of sugar by the United States Food Administration been a success or a failure? What light does this particular experiment throw upon the general problem of public regulation? The pre-war attitude and possibly the present opinion of most Americans and preëminently that of the business and professional classes is well typified by that of Senator Henry Cabot Lodge in his speech upon the Shortgage of Sugar before the Senate, February 27, 1918. "... We undertook to check the operation of these great economic forces by the artificial and arbitrary methods of law and by executive action. It was proposed to reduce prices in spite of the overwhelming economic forces which were working always steadily and relentlessly toward their advance and at

the same time to stimulate production. Nothing could be more desirable than both these purposes, but there was much doubt in the minds of those who reflected upon these subjects whether such an experiment as this could possibly succeed. The artificial regulation and fixing of prices had been tried over and over again in the past and history shows only a record of failure in the attempts."

In our study of the experiment with sugar we shall consider in turn the sources and distribution of supply, both before the war and since it began, the price-fixing negotiations and settlements, and their outcome so far as can be ascertained at this time.

Inasmuch as sugar is universally consumed and its production is not confined to a few localities but scattered throughout the world, with modern means of communication and transportation, anything which materially affects production or consumption in one section has its influence on the entire sugar world. Hence the sugar situation of the United States must be considered in relation to world conditions. The present extremely abnormal conditions are due to two main causes resulting directly from the war: first, the area formerly furnishing nearly one-third of the world's sugar, and what was the largest source of supply for non-producing countries, is within the European battle lines; secondly, transportation facilities have become inadequate for the proper distribution of the sugar produced outside of the Central Powers. Most noteworthy in the latter connection is the lack of bottoms to transport the enormous tonnage of Javan sugar, which burdens its producers as much as the lack of it burdens many of those in need.

We can get a more accurate idea of the world situation and particularly of the situation of the United

States and her European allies if we examine two condensed tables showing world production and sources of United States consumption for a few years before the war as well as since.

SUGAR CROPS OF THE WORLD

(In Thousands of Long Tons)

Cane Sugar	*1912-13*[1]	*'13-14*[1]	*'14-15*[1]	*'15-16*[1]	*'16-17*[2]	*'17-18*[2]
Louisiana and Texas	173	268	220	124	277	227
Hawaii	488	551	577	530	579	525
Porto Rico	350	325	315	431	449	475
Cuba	2,428	2,598	2,593	3,008	3,024	3,200
Other West Indies	241	310	307	493	391	412
Mexico and Central America	152	152	132	90	75	60
South America	591	779	866	749	774	948
Total America	4,404	4,983	5,010	5,337	5,570	5,847
British India	2,552	2,291	2,381	2,634	2,626	2,750
Java	1,131	1,345	1,303	1,199	1,596	1,800
Formosa and Japan	117	204	262	405	436	450
Philippine Islands (Exports)	155	228	243	332	210	273
Total Asia	4,155	4,066	4,189	4,569	4,868	5,273
Australasia	190	358	342	250	293	365
Africa	416	475	524	523	526	534
Europe (Spain)	14	13	7	6	6	6
Total Cane Sugar	9,179	9,892	10,072	10,694	11,263	12,026
Beet Sugar						
Germany	2,732	2,720	2,500	1,720	1,350	1,200
Austria	1,920	1,703	1,602	1,033	800	700
France	929	805	303	150	181	210
Belgium	300	231	204	120	135	125
Holland	317	230	302	240	269	210
Russia	1,384	1,688	1,967	1,584	1,158	900
Other countries	709	804	678	664	546	419
Total Europe	8,341	8,180	7,557	5,511	4,456	3,764
United States	624	655	646	780	735	750
Canada		10	12	15	13	12
Total Beet Sugar	8,966	8,846	8,215	6,306	5,202	4,526
Grand Total Cane and Beet	18,144	18,738	18,288	16,639	16,467	16,552

[1] Based on table in Willett & Gray's Weekly Statistical Sugar Trade Journal, January 6, 1916. Slight discrepancies in the figures do not lessen their value for this article.

[2] Ibid., January 10, 1918. Figures for 1918 estimates only.

SOURCES OF UNITED STATES SUGAR SUPPLIES

(In Thousands of Long Tons)

	1912[1]	1913[2]	1914[3]	1915[2]	1916[3]	1917[3]
Total Consumption, U. S.	3,504	3,743	3,761	3,802	3,659	3,954
La., Tex., Ariz. (Cane)	237	208	144	225	225	264
United States Beet	517	625	624	769	700	840
Hawaii (Cane)	526	507	510	509	534	631
Porto Rico (Cane)	286	331	274	300	393	464
Philippine Islands (Cane)	132	45	121	120	111	79
Various sugars from foreign molasses, maple, etc.	15	19	20	15	14	12
Total Domestic	1,733	1,735	1,694	1,939	1,977	2,291
Cuba (Cane)	1,665	1,991	2,019	1,842	1,667	1,652
Foreign Consumed	106	18	48	21	15	13
Total Refined	3,441	3,678	3,663	3,648	3,526	3,791
Consumed in raw or plastic state	63	65	98	153	132	164

It will be seen that tho the total world production for each of the last three years has been approximately one and a half to two million long tons less than in the three preceding years, the greater part of the reduction has been within the territory controlled by the Central Powers and much of this has been offset by increased production in other countries, especially in Cuba and Java. The net result has been that the Allied belligerents and neutrals have had available almost if not quite as much sugar as before the war; that is, as much would have been available except for lack of transportation facilities.

If we examine the table giving the sources of supply for the United States it will be seen that for a few years prior to the beginning of the war about half of the United States consumption was supplied by the domestic industries and the other half was imported from Cuba. Under the title of domestic industries are included not only the beet and cane sugars of continental United States, but also the cane sugar of Hawaii and Porto Rico. If we were to go back twenty years, we

[1] Willett & Gray's Weekly Statistical Sugar Trade Journal, January 9, 1913, p. 12.
[2] Ibid., January 6, 1916, p. 3.
[3] Ibid., January 10, 1918, p. 15.

should find considerable importations of German and other foreign sugars into the United States, but the development of the American beet sugar industry, the increase of production in Porto Rico since its annexation, and most of all the stimulation of output by preferential treatment of Cuban sugar, coincident with the withdrawal of government bounties to European sugar since the Brussels Convention of 1903 — all these have tended to crowd out of our market all foreign sugars other than those from Cuba, so that for the past decade only insignificant amounts have been imported.

The United Kingdom is second only to the United States in the amount of sugar consumed. Prior to the war she produced no sugar, except comparatively small quantities in some of her West Indian and other possessions.[1]

Before the war nearly all of the larger nations among the European belligerents and the Low Countries also were large exporters of sugar, and the others produced about what they consumed. Speaking approximately, European beet sugar constituted about four-ninths of all the world's supply before the war; of this, one-third was furnished by Germany, one-fifth by Austria-Hungary, one-fifth by Russia, and one-tenth by France. Of their respective productions in the decade prior to the war, Germany exported about two-fifths, Austria one-half, Russia one-fourth, and France one-eighth. Italy's exports were practically nil, and her imports since 1900 insignificant, her consumption being very small. In fact, per capita consumption in all continental European countries was only half or even less than half of that of the United States and the United Kingdom, owing largely to the lower standards of living

[1] British India has a large production but as all of it is consumed there, none is exported to enter the markets of the world, and hence its production is seldom considered in estimating causes and effects in the sugar world.

and also to the high internal taxes which raised the price of sugar.

This was the general situation in the sugar world when the war broke out and upset everything. The British government almost immediately made large purchases of sugar in the Cuban market in anticipation of needs that could not be supplied from the usual continental sources. From that time until the appointment of the International Sugar Commission in the autumn of 1917 we had the active competition of American refiners, the Entente buyers and neutrals of both Europe and America in the Cuban market, a market which prior to that time had been almost the exclusive field of the Americans. France's richest sugar area was within the enemy lines and she too had to have Cuban sugar. The increasing demand for tonnage, together with the decreasing supply, soon made imports of Javan sugar, either to the United States or to Europe, very costly. Owing to the greater distance it takes three times as much tonnage to carry sugar from Java as from Cuba to Europe. With the entrance of America into the war such imports became absolutely inexpedient.

Just prior to the war, sugar was cheaper in the United States than it had been for many years. In April, 1914, granulated sugar was quoted at $3.67 per 100 pounds in New York and it had been below $4.00 for several months. It was only a little above $4.00 when war broke out. Within a month it had risen to $7.10, tho it soon fell from that pinnacle. The chief causes of low prices in the United States were the lowering of the sugar duties in the Underwood Tariff and the increasing world production, especially the greater Cuban production. The effect of the latter of course was to decrease prices all over the world. Had there been no war the world would have probably seen gradually decreas-

ing sugar prices and, had it not been for the renewal of the temporary tariff rates of the Underwood bill (which were to have been removed May 1, 1915) the United States might have expected three-cent sugar. Instead we have had smaller world production, much of this unavailable, and consequent mounting prices, until in August, 1917, raw sugar reached 7¾ cents and refined 9¾ cents New York wholesale. Of course retail prices were proportionately higher. It was August 10, 1917, that Mr. Herbert Hoover was appointed Food Administrator of the United States and he soon began his efforts to control the supply and price of sugar in the United States, or as he prefers to put it, to " stabilize " prices. It is with the results of these efforts that we are primarily concerned in this paper. It may be added that this same problem was the center of the Senate investigation into the causes of the shortage of sugar which was conducted by the Committee on Manufactures last December and January.[1]

II

President Wilson seems to have decided soon after we entered the war, if not before, that we should have a food administration. Mr. Hoover came from Europe at the invitation of the Council of National Defense to advise on questions of food supply and control. He arrived in Washington May 3, 1917. Shortly he appeared before the Senate Committee advocating food control, and started his propaganda for food conservation. Later he appeared before the House Committee, and on May 19 received from the President a temporary appointment as food administrator. The food control bill was introduced into the House June 11. It was

[1] This committee never made a report on its findings tho Senator Lodge did report for himself in a speech to which Senator Jones replied. The Hearings before this committee contain a mass of information, and are frequently referred to in the following.

finally enacted August 10, and Mr. Hoover was appointed immediately. During all these three months he was very active, not only in trying to get what he considered proper legislation from Congress, but also in appealing to the good sense and patriotism of the American people to conserve food, and in planning the organization of the expected control.

As later worked out, this organization involved the creation of a Sugar Division of the Food Administration, the creation of the International Sugar Committee and various agreements with the beet and cane sugar producers of the United States and Cuba, besides the regulation of the wholesale and retail trade throughout the country. The Food Administration was not given the power to fix prices of sugar directly or to buy it, as was the British food controller. It was given the power to declare excessive profits extortionate and to revoke the licenses of violators of the law, but Mr. Hoover deemed it wiser to follow the plan of prevention of abuses through the fixing of maximum prices or margins by voluntary agreements with the producers rather than to cure the trouble after the event by penalties. The negotiations with the various interests and the operation of the organization affected form one of the most interesting chapters in the history of the Food Administration.

On August 15, Mr. Hoover appointed George M. Rolph chief of the sugar division of the Food Administration. Mr. Rolph had been connected with the Hawaiian industry since 1898. For some years he was secretary of two raw sugar producing companies. Under his leadership, the producers of about 80 per cent of the Hawaiian output formed the Sugar Factors Co., Limited, mainly for the purpose of disposing of their raw sugars to better advantage. This organization owns most of

the stock in the California and Hawaiian Sugar Refining Co. which operates a refinery at Crockett, California and of which Mr. Rolph has been general manager for the past twelve years. This factory takes a little over half of the output of the members of the Factors Company, the rest being sold under contract to two independent eastern refineries, the Pennsylvania and the National. Mr. Rolph testified before the Senate Committee that he had given up a good salary to work without compensation for the Food Administration, that he had owned no sugar stocks or lands for over ten years, and that he had volunteered that the California and Hawaiian refinery should reduce its prices of cane sugar to $7.25, the beet basis, or about $1.00 under the cane price maintained by the eastern refiners for several months, thereby sacrificing his company to the extent of $700,000. Throughout all the hearings of this committee, no one, unless possibly Senator Reed, seemed to think that Mr. Rolph had acted from self-interested motives in the conduct of his work with the Sugar Division.

The day after Mr. Rolph's appointment, the New York Sugar Exchange was closed and shortly thereafter representatives of the beet sugar companies of the United States were summoned to Washington. After preliminary negotiations with representatives of about 85 per cent of the domestic beet output, Mr. Hoover announced, under date of August 25, that they had agreed to sell the 1917–18 crop of beet sugar at $7.25 cane basis, seaboard refining points. Some weeks later this was accepted by all of the domestic beet sugar companies. This base price was changed to $7.35 on December 12, and to $7.45 on January 8, to make it conform more nearly to the cane basis as established after the agreement with the Cuban producers. These prices are apt to be slightly misleading to laymen

because very little beet sugar is sold at the seaboard refining points — Boston, New York, Philadelphia, Savannah, New Orleans, and San Francisco. At interior points, where practically all beet sugar is marketed, the price would be $7.25 plus the cost of transportation from the nearest seaboard refinery, so that beet sugar of Colorado, Utah and other far inland factories would sell much higher at their very doors than at points near the seaboard. This basing point arrangement was in harmony with commercial practice before the war, that is, beet sugar has always been sold at interior points at prices to meet the competition of imported sugars rather than in relation to cost of production. The nearer the seaboard, the less freight for cane sugar and the more freight the beet sugar had to absorb.

To provide for the proper distribution of beet sugar, rather than leave it to the usual commercial agencies a Sugar Distributing Committee was appointed by the Food Administration. It is composed of representatives of the beet sugar producers and brokers of the beet sugar territory of the United States and has headquarters at Chicago. Mr. Horace Earle, a sugar broker of Minneapolis, is the active manager of the organization. This central organization has local representatives scattered throughout the country. The price of sugar at every point throughout the distributing territory is established by adding the freight rate from the nearest seaboard refinery to the base price as explained above. Representatives of this distributing committee endeavor to allot available sugar as fairly as possible to the dealers in the various localities, and to see that it is shipped from the factory that will have the lowest freight rate to absorb. Of course, a difficulty arises when the nearest factory or factories cannot supply the

demand and a distant one is requested to do so. But clause 5 in the agreement with the beet sugar companies [1] provides for the pooling of losses occasioned by the long shipments of some; hence the tendency to hold back such sugar is minimized. Only by some such agreement could the Chicago distributing committee have a free hand without causing great friction. Besides the advantage of more equitable distribution, representatives of this committee claim a great saving in freight charges, and hence a saving of railroad facilities for military purposes also. For example, in ordinary years competition frequently results in the shipping of Michigan beet sugar into Iowa and other states west of the Mississippi, while Colorado and other western beet sugar goes as far east as Pittsburgh and often further, to say nothing of cross freights of cane and beet sugar.

When asked upon what basis they arrived at $7.25 for beet sugar, Mr. Hoover replied that the cost in the various factories ranged from $4 to $7 per 100 pounds and that they had to make a price that would keep the highest cost producer in operation so as to maintain a maximum production.[2] According to an investigation of the Federal Trade Commission [3] published last year, the average cost for 74 factories producing 96 per cent of all the beet sugar in the United States during the five years ending with the season of 1913–14 was $3.74 per 100 pounds, including depreciation, which for these factories averaged 25 cents. The five-year average range for the individual factories was from $3.13 to $6.45.[4] With respect to earnings the report covers 37 companies, operating 77 factories that produced

[1] Senate Hearings, p. 349. [2] Ibid., p. 591.

[3] Report on the Beet Sugar Industry in the United States, 1917, p. x. This report covers in detail all the beet sugar factories operating in the United States at that time except two small ones.

[4] Ibid., pp. 72–74.

nearly 99 per cent of the total output during the same five years. In this period these companies earned in the sugar manufacturing business an average of 11.2 per cent on the capital employed therein. The average earnings of all the companies by years ranged from 16.6 per cent in 1909–10 to 3.1 per cent in 1913–14, the year the tariff was reduced. In no year except 1913–14 were the average earnings as low as 8½ per cent. The five-year average for each of the 37 companies varied from a loss of 17.8 per cent to a net income of 44.8 per cent and yearly returns from individual companies varied from losses of 36.6 per cent to net earnings of 64.2 per cent. These figures include allowances for depreciation.[1] Since the war began, altho costs have risen considerably, especially during the past year, their profits have been much greater. In some cases they must have exceeded the dreams of the most avaricious.

Shortly after announcing the agreement with the beet sugar factories the Food Administration took steps to secure agreements with the other sugar interests. The seaboard cane refiners were called to Washington, and negotiations with Cuban producers were begun also. As most of the refiners got nearly all of their raw sugar from Cuba and as the Entente governments as well as neutrals were competing buyers in the same market, it was necessary to make an agreement with England, France, and Italy in order to deal with the Cuban situation.

A British sugar commission had been in existence for a long time as a purchaser for the British government. On September 21, the International Sugar Committee was appointed. Two representatives, Sir Joseph White-Todd and J. Ramsay Drake were appointed by the Royal Sugar Commission in London, acting for the

[1] Report on the Beet Sugar Industry in the United States, 1917, pp. xi and 130.

English food controller, and Mr. Hoover appointed three members — Mr. Rolph, chairman, Mr. Earl D. Babst, president of the American Sugar Refining Co., popularly known as the sugar trust, and Mr. William A. Jamison of Arbuckle Brothers, independent refiners of New York City. Mr. Hoover stated [1] that the French government also appointed a representative.

The main purposes of the International Committee are to promote harmony in buying and transporting raw sugar for the several Allied belligerents, as well as in making allotments to neutrals. The three American members of the International Committee decide purely local questions in regard to the shipment of sugar from Cuba while the English members decide all questions in regard to European shipments. The American Refiners' Committee, composed of refiners and their sales agents, has the allocation of the sugar set aside for the United States by the International Committee. After the purchase of the sugar was consummated, the American Refiners' Committee became the active committee and met almost daily, allotting the various shipments of sugar to the refiners as they came forward from Cuba, Porto Rico and other places. The distribution of cane sugar is entirely in the hands of the Food Administration, that of beet sugar, in the hands of the Sugar Distributing Committee at Chicago but under the direction of the Food Administration. The expenses of all of these committees are borne not by the Food Administration or the government but by the refiners, among whom they are prorated.

After more or less negotiation the seaboard cane sugar refiners agreed to refrain from their usual direct buying of Cuban and other raw sugars and to permit the International Committee to arrange all purchases for them.

[1] Senate Hearings, p. 596.

Furthermore, they agreed to limit their refining differential, or excess of selling price of granulated over buying price of raw sugar, to $1.30 per 100 pounds. This differential was a maximum and might later be changed if the Food Administration investigated and found it to be unreasonable. It covers the cost of refining and profits. According to the best information obtainable by the writer this cost averaged about 60 cents six or eight years ago, but was claimed by the refiners to have risen to 85 cents before the war began and still higher since so that last fall $1.30 was supposed to be equivalent to the 85 cents before the war. It has recently been announced (June) that Oscar S. Straus, Chairman of the Public Service Commission of New York, has been appointed by the Food Administration to investigate and determine upon an application of the sugar refining companies for an increase in the differential due to increased cost of labor and supplies since October. Of course, like other costs and margins, those of refiners vary very much, not only between the different refineries but from year to year and season to season. At the beginning of 1917 the margin was $1.345. During the year it reached over $2.00 and sank as low as $.712.[1] Altho the Food Administration agreement was for a differential of $1.30, which was in force for most of the last quarter of 1917, the change to the new crop raw basis previous to the drop in refined prices made the nominal difference $1.982 at the close of the year.

Nearly all of the Cuban sugar crop of 1916–17 had been disposed of by the time the International Committee was appointed on September 21. It is estimated that there were probably 50,000 tons unsold. At this time none of the negotiations, namely those with the beet sugar producers, the cane sugar refiners, and the

[1] Weekly Statistical Sugar Trade Journal, January 3, 1918, p. 4.

Cubans, were completed, tho there were tentative agreements with all but the latter. The price of Cuban sugar controls that of all others and, in all the negotiations the Food Administration and the producers, while talking costs of production and fair profits as bases of prices, nevertheless kept a watchful eye on the probabilities in Cuba. The Food Administration was fearful lest the scramble for the remnant in Cuba, which was entirely inadequate to meet demands, would raise prices to high levels, not only for that remnant but also for the entire 1917–18 crop about which it was then negotiating, and which would furnish the total supplies for all the Allies, including the United States, as well as for neutrals. Consequently before the formal agreement was finally signed by the various American refiners, they were requested to keep out of the Cuban market and to arrange for purchases through the International Committee only, and that committee refused to arrange for any purchases at higher than $6.90 delivered in New York. This was nearly $1.00 under the maximum price reached in August. This remnant of Cuban sugar was finally secured through the committee, tho in the meantime many of the eastern refineries had to close down for lack of raws. In any case, it would have run them only a very short time. Meanwhile negotiations were continuing regarding the new Cuban crop and also regarding the Louisiana crop.

The harvesting and marketing of the bulk of Cuba's as well as of the world's sugar crops begins about the first of the year and continues into the early summer. The large Javan crop coming from the southern hemisphere usually helps to fill in the between-season gap, but, as mentioned above, most of it was unavailable last year. But even in ordinary years, the summer demand makes for high prices in August and September. Some

relief is usually afforded by the beet sugar crop, which begins coming on the market in October. Serious frosts occur in no important cane sugar area other than Louisiana, hence that crop usually begins coming on the market earlier than Cuban sugars, the largest source of supply for the United States. It was the hope of the Food Administration that the western beet sugar and the Louisiana cane sugar would fill in the gap till the new Cuban crop started.

In October the Food Administration negotiated with Louisiana producers and finally agreed upon a price of $6.35 at New Orleans for their raws, and the American Sugar Refining Co. agreed to take 100,000 tons at that figure. The Food Administration suggested the beet price as a basis but the Louisiana representative considered, in view of their greater costs and other disadvantages, that it would not be sufficient. They were asked to come to Washington for further negotiations and the above price was agreed to October 23, it being deemed about equivalent to the cane price then ruling on the Atlantic seaboard.[1]

The conferences over the price of Cuban raws were drawn out over some months and an agreement at last entered into December 24.[2] At first the Food Administration dealt with representatives of the Cuban producers only, but both the Cuban and American governments entered the negotiations before they closed. The full proceedings have not been made public, but Mr. Hoover stated[3] that he sent a commissioner to Cuba to study costs of production. The study embraced about 80 per cent of the actual production of the year before and arrived at about $3.38 as the average cost of production. Some plantations, of course, had higher costs. They

[1] Senate Hearings, p. 595.
[2] Weekly Statistical Sugar Trade Journal, January 31, 1918, p. 53.
[3] Senate Hearings, p. 597.

thought it would take about $1.00 more than this average to stimulate production and some of the American representatives held strongly for $4.50 The Cuban representatives held out for $5.25 and a long negotiation took place. It was ultimately closed at the request of the United States State Department at $4.60, f.o.b. Cuban ports. This is equivalent to about $6.00 in New York City, after paying the duty of $1.00, freight, insurance and other costs. This was for the new crop sugar, which began to be harvested about the middle of November, tho very little of it got to the United States before the first of the year.

The costs in Cuba vary greatly. Most of the crop throughout the island is produced under the old colono system of tenant farming and crude agriculture. The cane of the four western provinces, or about 60 per cent of the total, is ground by antiquated small mills which have their heavy costs increased by heavy transportation charges. The large American corporations with their high efficiency mills get cheaper cane in the two eastern provinces and have better access to ports. J. V. Knight of New York, who claims to be a disinterested expert on such Cuban matters, puts the cost of the better plants at $3.47. This seems liberal; it is probably 50 to 75 per cent above such costs six or eight years ago, when the present writer made some study of the matter.

At any rate, altho Mr. Hoover states that it was the two governments and not the Food Administration who fixed the price of Cuban sugar, it is clear that much the same principles were followed as in the fixing of the beet and the Louisiana sugar prices. The extreme prices of August were scaled down somewhat but they were still left high enough not only to give a good profit to average producers, but also to maintain even the highest cost

producers with few exceptions. This was in accord with the announced general policy of reducing the cost to the consumer and yet stimulating production, a policy which Senator Lodge said should have been stated in reverse order, because stimulating production was of first importance.

About this time an insurrection arose among the sugar beet growers of the West. Altho the beet sugar companies had been making huge profits since the war, as well as before in many cases, and had arranged for a price which would still assure large profits, the farmers' costs of growing beets were increasing, competing crops were becoming relatively more profitable, and the farmers were refusing to sign the contracts offered by the beet sugar companies for the 1918–19 season. Much pressure was brought to bear, and appeals to patriotism were made by the sugar companies and backed up by the local food administration officials as well as by letters of Rolph and Hoover themselves. The Senate Hearings developed the fact that in some cases the state food administrators, to whom the growers appealed, were interested in, or closely connected with, the beet sugar companies.

It should be recalled in this connection that the payment for beets in the United States has, in most cases, been independent of the fluctuation in the price of sugar, unlike the payment for cane in Louisiana and Cuba. Prior to planting, that is, about a year before the sugar gets on the market, the beet growers sign contracts with the sugar companies wherein it is agreed they are to receive so much per ton for so many acres of beets. Sometimes the price varies with the sugar content of the beets, in other cases it does not. For a number of years, the most common prices paid were $4.50 and $5.00 per short ton (2000 lbs.) and in some

cases 50 cents and $1.00 extra for beets that had to be siloed, the latter in order to cover part of the extra work and shrinkage. In later years these prices were increased in some localities. The United States Department of Agriculture gives the average prices to growers as $5.82, $5.69, $5.45, $5.67, and $6.12 for the years 1912 to 1916, respectively.[1] We have as yet no official statement of the average for the 1917–18 crop, tho we know that several companies made moderate increases and a number gave bonuses of 50 cents per ton. The contracts which a number of the companies offered for the present season contained substantial increases, but many of the growers claimed that they were insufficient and that they could not afford to plant the usual acreage, much less the increased acreage which was urged in the name of patriotism. After many meetings in various parts of the beet-growing sections and failure to obtain what the growers deemed just, in fact, failure to obtain much consideration from some of the beet sugar companies, they sent delegations to Washington to appeal to Mr. Hoover. The investigation of the causes of the shortage of sugar happened to be on at this time, and a number of their representatives testified before the Senate committee. They alleged among other things that most of the advances in prices of beets which had been made had been forced, or were made in order to quiet dissatisfaction and agitation.

Mr. Hoover virtually admitted before the investigating committee[2] that in agreeing on the price for beet sugar he had not given attention to the growers, but justified this on the ground that the prices of beets for the 1917–18 sugar crop had already been settled by contracts between the sugar companies and the farmers.

[1] Monthly Crop Report, May, 1917, p. 43.

[2] Senate Hearings, pp. 590–595.

After the farmers' delegations came to Washington, he appointed local commissions in a number of states, among them California, Colorado, Nebraska, and Michigan. The expectation was that the findings of these commissions would serve as a basis upon which the growers and factories could be urged to agree upon a price that would result in an adequate production. Generally speaking the investigations did not consider the prices of competing cane sugar at the seaboard refining points, nor the profits of the factories, but primarily the cost of growing sugar beets and the relative advantages of beets as compared with competing crops. We have no full report as to results, but in each of the states mentioned the sugar companies raised the prices in their contracts to $10.00 per ton. The Department of Agriculture reported in May that there was every indication that a normal crop had been planted.[1] This forecast may prove optimistic; the indications are that at all events no increase of output is to be expected.

A word should be said about the regulations regarding the distribution of sugar after it leaves the refiners and factories. The $1.30 differential allowed refiners was supposed to include the brokerage of 3 to 5 cents per 100 pounds which refiners pay agents for selling their sugar to jobbers and wholesalers. The latter were, according to the terms of the law, supposed to deal in all commodities at cost plus a reasonable profit and Mr. Hoover interpreted that to mean a pre-war normal profit for the time, place, and business. The wholesalers generally took that to mean 25 cents a hundred pounds and the discount of 2 per cent for cash from the retailers.[2] The law gave the Food Administration no

[1] Weekly Statistical Sugar Trade Journal, May 29, 1918, p. 236.

[2] Senate Hearings, pp. 641, 825 et passim.

power to regulate retailers except those doing more than $100,000 business a year. It did contain a provision against extortionate prices, but the penalty attached to that section of the bill was deleted, and according to Mr. Hoover,[1] all he could do was to instruct wholesalers not to deal with them.

Practically it is very difficult in any case to manage 350,000 retailers and several thousand wholesalers scattered throughout the United States. But at least it is a matter upon which public opinion could be focused. The public generally is conversant with the limitations of quantities which customers might purchase. These have varied with time and place. In many instances the limit was one pound or even less at a purchase, and in New England and other eastern sections no sugar was available at times in the latter part of 1917. The general rule for purchases in the United States has been five pounds for urban and ten pounds for rural customers. Recently these have been changed to two and five pounds respectively, with the limit of three pounds per capita per month.

In October the manufacturers of non-essential food products were limited to 50 per cent of their normal requirements; on December 28 this was raised to 80 per cent in view of the new crop in prospect. Later it was ruled that such manufacturers starting operations after November 1, 1917 but before April 1, 1918 would be limited to 50 per cent and that those starting after April 1, 1918 should be allotted no sugar whatever. Again on July 1, 1918, all of the less essential industries were limited to 50 per cent. Beginning May 15, 1918, practically all manufacturers using sugar were required to obtain certificates from the Federal Food Administration, showing amounts that they were entitled to

[1] Senate Hearings, p. 642.

purchase, which they were required to turn over to licensed wholesalers and other dealers when making purchases.[1]

III

The organization of the Sugar Division of the Food Administration has been severely criticized, especially by some refiners and a number of brokers. A number have objected to the appointment of refiners and especially to the appointment of Mr. Babst, president of the so-called Trust, on the International Committee, and point out that the British representatives are sugar merchants but not refiners. Mr. Hoover and others justified these appointments on the ground that it was necessary to have capable men who were familiar with the large and difficult problems, that none of them had raw sugar interests, and that they did not make decisions in matters involving their own interests. There is no record of objection to Mr. Jamison of Arbuckle Brothers, nor of serious objection to Mr. Rolph; and it would seem that the latter had made large financial sacrifices and had worked energetically, patriotically and capably for the Food Administration. Doubtless

[1] Sugar Market Review (Federal), May 8, 1918, pp. 2, 3. Following is an estimate compiled by the Sugar Division from information given by manufacturers, tho it appears to be far from complete. (See Weekly Statistical Sugar Trade Journal, April 4, 1918, p. 171.)

	Tons		Tons
Confectionery	350,000	Sundry Bakery Goods	9,000
Soft Drinks	135,000	Tobacco	26,000
Condensed Milk	100,000	Canned Fruits	9,000
Ice Cream	64,000	Chewing Gum	15,000
Crackers	55,000	Proprietary Medicines	6,100
Pies	47,000	Canned Vegetables	4,000
Bread	45,000	Soap	900
Sweet Doughs	45,000	Brewers	None
Cakes	37,500		
Total			966,000

The figures, such as they are, would indicate that one-quarter of the domestic consumption is for these various uses.

much of the objection to Mr. Babst is due to the elimination by his company of all brokers in the selling of sugar, a thing which it could easily do without danger of losing custom as long as its allotment of sugar was fixed (at 41 per cent of the total) by the Food Administration. In view of the holdings of his company and of stockholders of his company in beet and possibly in other sugar stocks, it is not entirely clear that he is a disinterested official. The dilemma which a patriotic administrator in Mr. Hoover's position confronts is that of selecting capable and informed representatives who are interested or uninformed ones who are disinterested. The present writer is inclined to think that Mr. Hoover's organization of the Sugar Division of the Food Administration compares favorably with other similar arrangements in the government service.

The Food Administration has claimed that it has saved the consumers of the country many millions of dollars in lower prices of sugar. The New York wholesale price in August, 1917, went to 9¾ cents, and retail prices for granulated in some localities as high as 15, 20 and even 25 cents. It has been said that 25 or 30 or even 50 cents would have been a common price had it not been for regulation. One of Senator Lodge's favorite questions, repeated so often in one form or another that it became almost a joke, was: What comfort is there in a low price when no sugar can be obtained? "The gratitude which the vast majority of people of a large section of the country ought to have felt for the low prices of the Food Administration did not seem to comfort them when they sat at a table where sugar had become a memory." [1] Senator Reed and others pointed out that the world's production of sugar and the supplies available for the United States

[1] Senate Speech of February 27, 1918.

were not less but slightly more than for the preceding year, and that prices were usually highest in August, hence, that they would have fallen naturally if there had been no regulation. There is truth in this contention and one who reads between the lines can see that not only Mr. Hoover but also most of the interested parties were aware of this during the negotiations as to prices. If transportation had been normal, there is little doubt that prices would have fallen as low as the regulated prices, even lower if all the Javan sugar could have been secured.[1]

It was not only the shipping situation, however, but also the railroad situation that blocked the proper distribution of sugar as of most other goods. The Food Administration had expected that the Louisiana sugar would fill the between-season gap on the Atlantic coast, and especially in New England, where the shortage was most severe and prolonged. But the Atlantic coast refineries got much less Louisiana sugar than usual, largely because the prices set enabled the Louisiana producers to make more profit on clarified and washed sugars, which they could manufacture on their own plantations and easily dispose of at such a juncture, than they could by sending them to the refiners. Manufacturers of confections gladly bought these lower grade sugars at refined prices rather than do without. Other causes of shortage were the frost damage to the Louisiana crop, larger than contemplated exports to the Allies, and possibly the failure to get some South American sugars because of the regulated price.

It was Mr. Hoover's original intention to confine the distribution of beet sugars to the territory west of Pittsburgh and Buffalo, but when the shortage became more

[1] Mr. Hoover tried to arrange that the German ships interned at Manila should bring this sugar, but the Shipping Board decided it more important that they should bring hemp.

severe in the East, he tried to get some of them into that territory. The railroad situation had become so acute by that time that it was almost impossible, if not quite so, to secure adequate quantities, tho about 196 cars were thus obtained before the end of the year. The price of this sugar was raised by the Food Administration from $7.25, the agreed beet basis, to $8.15 old crop cane basis. Mr. Hoover claimed that the raising of the price had nothing to do with the getting of beet sugar into the East, that it was raised because the consumer would get no benefit from a lower price in any case as long as cane was selling at the higher prices, and that it helped to compensate the distributing trade for the extra freight cost of penetrating that territory.[1]

This last was almost an admission of a part of the contention that the eastern shortage was due in part to the regulations regarding the price of beet sugar. Under ordinary conditions, the high prices in the East in the between-season gap would cause a rush of beet sugar to fill the void. The beet sugar companies would naturally desire to dispose of all the sugar possible in October, November, and December, before the depression of prices by the huge Cuban crop which usually begins in earnest in January and reaches its heaviest pressure in February and March. But under the agreement with the Food Administration factories were to receive the same price the year round, and the farther they sold from the seaboard the higher the price, and the less freight they had to absorb. It seems probable that more beet sugar would have gotten through in the early part of the fall without regulation than did with it. But it is open to question whether the transportation situation would have let much more through or not, or whether the country might not have suffered

[1] Senate Hearings, p. 606.

more for something else than it did if the sugar could have gotten through. Without first hand information as to the indiscriminate handling of priority orders and the undeniable congestion and chaos, it is impossible to judge the difficulties of the freight situation. The question of sugar did not stand alone. If enough transportation had been denied other things, of course there would have been sufficient for sugar. But almost everybody was clamoring for priority on this or that, and prices of sugar were not primary, as usual, but secondary in determining where it should go and in what quantities. With the transportation situation as it was, it seems certain that without regulation prices of sugar to consumers would have been much higher than they were in many localities, tho probably not higher and possibly somewhat lower in beet sugar sections, and on the western coast where Hawaiian as well as beet sugar was available. The little extra sugar which unregulated high prices would have brought to New England and other needy sections would not, probably, have been distributed under such a régime to the most needy of these sections so well as was possible under the regulated price and limitations upon quantities purchased.

The writer has had special reports from all sections of the United States, both from local food administrators who might be biassed in favor of the Food Administration and from independents as an additional source and check. These reports indicate that the regulations regarding prices, margins, and quantities have been very generally observed, and that there have been comparatively few violations. There is some indication that "good customers" as well as unreasonable customers, especially foreigners and disloyalists, get around the restrictions in one way or another. Yet not only is

the general opinion favorable, but in many cases the information is volunteered that the regulations regarding sugar are better observed than those for flour or other commodities. In no case is poorer observation reported.

There seems to be general satisfaction, also, on the part of manufacturers, wholesalers, brokers, retailers and the public, tho probably this would not be the case except for the war emergency. The most severe complaints have been those of the brokers and a few refiners against Mr. Babst and the American Sugar Refining Co. of which we have spoken already. These were only partially against the Food Administration. It is reported that some of the wholesalers feel that they have suffered most by the regulations. While their costs of doing business have been climbing, their margin on sugar has been kept to the pre-war basis. It is urged that this margin was below cost even before the war and would not have been so low except for the fact that they recouped themselves by making sugar a " leader " — a practice which the Food Administration's conservation plans condemn.

Perhaps the most serious, widespread and well taken complaints on the part of the public have been those against allowing large quantities of sugar to go into non-essentials while making rigorous restrictions upon household use. Mr. Hoover stated before the Senate investigating committee that about 250,000 people are employed in the candy industry, and that it would be a serious thing to throw them " entirely out of work." It seems probable that the majority of them could have been absorbed in other more essential industries through gradual reduction of allotments of sugar and proper handling of employment. There is certainly plenty of essential work to be done, and confectionary, soft

drinks, chewing gum and proprietary medicines do not seem to be more important than sugar for the household. There is a counter consideration, however, which has been raised and about which the writer is unable to decide, namely, how important these non-essentials are as substitutes for worse things, especially in view of the national campaign for prohibition.

As yet we can speak less confidently about the effects of the regulations upon production than of those upon distribution of last year's crop. At the time this article is prepared, there are no adequate data of plantings in the various producing areas. Early information is that the acreage of United States beets is 2½ to 11 per cent, and that of Louisiana cane 4 or 5 per cent, less than for last year.[1] An 11 per cent reduction in beet acreage would indicate that a mistake had been made.[2] As to the much larger and more important acreages of Cuba, as well as those of Hawaii and Porto Rico, we have even less adequate information. Even if we had the data for a single year, they would not be conclusive in deciding the merits or demerits of governmental price-fixing or regulation.

We may summarize our conclusions regarding the experiment of governmental control of sugar prices and supply during the past year. The transportation situation without and within the United States, and not price, has dominated the distribution of sugar. With the war dominating transportation, prices of sugar throughout the United States have been stabilized and on the whole lower than they would have been without regulation. Scarcity in some sections has been made little if at all more severe, and prices have certainly

[1] Meinroth Brokerage Co. Report of June 15. Monthly Crop Report, United States Department of Agriculture, May, 1918, p. 57.

[2] Such a decline is alleged in Facts about Sugar (Report for June 15); a publication controlled by the beet sugar interests.

been made much lower through regulation. This has promoted the general welfare. The answer to the crucial problem of the effect of regulation upon supply is still indeterminable, but the Food Administration has proceeded upon the principle of allowing profits to the highest cost producers, and such a policy should not result in greatly reduced supplies.

The success of such regulation depends almost entirely upon the ability and integrity of the administrative personnel and its success in securing the coöperation of the public. In an emergency like the present, without regulation, fluctuations are extreme, and great abuses and hardships are likely to result. A wise and capable administration, especially through its power of appeal to the patriotism of all classes, can eliminate many of the grossest abuses. The automatic, or "natural," adjustments of supply and distribution through price are too slow and involve too much hardship in the case of prime necessities in a time like this. In times of peace, the situation is very different.

From the few instances cited, as well as from one's daily observation, it is easy to see that the regulation of the price of one thing involves the regulation of the prices of all constituent factors and competing commodities, which in the last analysis means the regulation of wages, as well as the regulation of the prices, the supply and the distribution of everything else. Temporary regulation of gross abuses has as a standard a "natural" norm based on previous experience. Permanent regulation of everything would in time lose sight of such a norm, and would have to rest on norms of its own. The majority of the people in most sections of the United States are not yet socially minded enough to make the balance of advantage fall to the side of public regulation of prices in ordinary times, except under

monopoly conditions and in a few other cases. But despite the many disadvantages, the balance of advantage falls to the side of the public regulation of sugar prices and distribution in the United States under present conditions, as exemplified by the experience of the past year.

The rapid developments that have taken place in the few weeks that have elapsed between the writing and the proof reading of this article are characteristic. Among the important ones are the following: The wholesalers' margin has been increased from 25 to 35 cents. A vast system of minute control of distribution throughout the country has been initiated. The New York price of Cuban raws has been advanced 5 cents per hundred pounds to cover extra insurance since German submarines appeared in American waters. This has necessitated a corresponding readjustment of prices all around. The Department of Agriculture has issued its statement saying that reports indicate 689,700 acres planted to sugar beets in 1918 which is 117,000 acres less than were planted in 1917, and 79,000 acres less than in 1916 (Monthly Crop Report, July, 1918, p. 76), that is, a decrease of 14 per cent as compared with last year, or of 10 per cent as compared with the year before.

But the most important recent development is the formation of the Sugar Equalization Board by the Food Administration. It is composed of Herbert Hoover, chairman; George Rolph, president; directors — F. W. Taussig of the U. S. Tariff Commission; Clarence Woolley of the War Trade Board; William A. Glasgow, Jr., Chief Counsel; Theodore Whitmarsh and George Zabriskie of the Food Administration. It will be incorporated with a capital of $5,000,000 from the President's special funds, so that it may deal with facility in foreign sugar and thus give the Food Administration better control over both distribution and prices. "The object is to absorb the high peaks of cost in sugar production and to make a small margin on the low cost of certain foreign sugars which may be purchased and thus secure an equalization of the price to the public on a lower level than will otherwise be possible." The Food Administration states that the public will thus benefit by upwards of one cent a pound. At the same time it announces that higher costs of production will mean higher prices for the next crop which begins coming on the market in the fall.

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PRICE-FIXING IN THE IRON AND STEEL INDUSTRY

SUMMARY

Extraordinary rise of iron and steel prices in 1916 and 1917, 598. — Comparison with conditions of 1899–1900, 601. — Four main problems involved in government regulation, 603. — Price announcement of September, 1917; nature of reductions, 610. — Further announcements, 612. — Prices maintained in January, 1918; slightly revised in March, 615. — Further slight revision in June, 617. — Conclusion, 618.

On few industries have war conditions made greater demands than on the manufacture of iron and steel. This demand has been reflected in a phenomenal increase in prices, and has led to an attempt on the part of certain governmental or quasi-governmental agencies to limit the upward movement without restricting the production necessary to supply increased needs. The conditions which resulted in a definite fixing of prices were not unlike those prevailing in several other industries, altho the problems to be faced were to some extent peculiar to the iron and steel industry itself. The machinery used for carrying out a price-fixing policy was different from that hitherto employed by the government, and was due to a realization on the part of producers that some sort of regulation was inevitable. When the United States entered the war it was recognized that a large part of the demand for iron and steel would come from the government, altho how extensive this demand was to be was not so fully appreciated a year ago as it is today. Furthermore, our country's allies were themselves relying to a considerable extent upon American iron and steel, and any price-fixing

policy which limited output might seriously impair the prospects of a successful issue in the world struggle. It was particularly necessary therefore in this industry that the regulation of prices should be undertaken with care and with due regard to ultimate effects.

In order to understand the iron and steel situation which led to the fixing of prices it will be necessary to review the course of price variation since the time when the war began to affect the quotations on iron and steel goods in the United States, and to note the effect on the general industrial situation produced by the entrance of our country into this world struggle. No pronounced upward movement in iron and steel quotations became noticeable in this country until nearly a year after the outbreak of the war in August, 1914. With a few exceptions prices remained relatively low through the whole of 1914 and the first three or four months of 1915. Before the close of the latter year the upward movement had become pronounced, and by the close of 1916 the quotations on important basic commodities exceeded those for the epochal years of 1899 and 1900. The highest point, however, was not reached until July, 1917, when prices in several cases were more than double the high quotations of December, 1916. The extent of this upward movement may be appreciated by comparing the average monthly prices of certain basic commodities for January and July during the years 1915–17, on p. 599. [1]

The increase in prices while very pronounced in all lines of iron, steel, and coke production was neither steady nor uniform. The prices of some articles — for example, wire rods, tank plate, Bessemer steel billets and Connellsville coke — exhibited marked fluctuations in their general upward movement. The price of

[1] Quotations averaged for each of the months given from the weekly price lists of the Iron Age.

TABLE I. AVERAGE MONTHLY PRICES FOR JANUARY AND JULY, 1915, 1916, 1917

	1915 January–July	1916 January–July	1917 January–July
Bessemer pig iron, Pittsburgh, per gross ton	$14.50–$14.95	$21.58–$21.95	$35.95–$57.45
Basic pig iron, f.o.b. Mahoning and Shenango Furnace, per gross ton	12.50– 12.74	17.81– 18.00	30.00– 52.50
Southern, No. 2, foundry pig iron, Cincinnati, per gross ton	12.40– 12.71	17.90– 16.90	26.10– 49.90
Local foundry pig iron, Chicago, per gross ton	13.00– 13.00	18.50– 19.00	30.00– 55.00
Bessemer steel billets, Pittsburgh, per gross ton	19.25– 21.38	32.00– 41.00	63.00–100.00
Wire rods, Pittsburgh, per gross ton	25.00– 25.63	43.00– 53.75	75.00– 96.25
Soft steel bars, Pittsburgh, per cwt.[1]	1.10– 1.25	2.03– 2.63	3.15– 4.50
Tank plates, Pittsburgh, per cwt.[1]	1.10– 1.22	2.25– 3.44	4.45– 9.00
Beams, Pittsburgh, per cwt.[1]	1.10– 1.25	1.90– 2.50	3.25– 4.50
Wire nails, Pittsburgh, per 100 pound keg	1.54– 1.60	2.13– 2.50	3.00– 4.00
Connellsville dry coke, Connellsville, per net ton	1.50– 1.64	2.94– 2.75	9.50– 12.75

dry coke during July and August, 1917, which averaged $12.75 and $13.60 per net ton respectively, reached at times as high a quotation as $16.00. The advances, too, varied in different lines. Pig iron between January, 1915, and July, 1917, had in most cases more than quadrupled in price. Bessemer steel billets were quoted in July, 1917, at more than five times their price in January, 1915. Tank plate and Connellsville coke during the two and a half years under consideration had increased in price more than 700 per cent. On the other hand, wire nails were quoted in July, 1917, at little more than two and a half times their price in January, 1915. Even this relatively modest price, however, was far in excess of the price fixed in the middle nineties by the notorious wire-nail pool.[2]

[1] Quoted in Iron Age in cents per pound but here the hundred weight is used to keep quotations in dollars.

[2] The situation in 1917 was of course very different from that of the middle nineties. Prices of iron and steel in this earlier period were exceptionally low. The wire from

The lack of uniformity in the general rise of prices was marked by some curious anomalies. With the free operation of the law of demand and supply, and with free and intense competition among buyers to secure necessary supplies the prices of pig iron, coke and various finished steel products came to occupy curious and changing relations to one another. In the early summer of 1915, Connellsville furnace coke sold at about one-eighth the price of basic pig iron at Valley furnaces. About a year later, with all prices higher, it sold at one-seventh the price of pig iron. At the beginning of July, 1917, with pig iron quadrupled in value coke sold at one-fourth to two-sevenths the pig iron price. The relation between pig iron and billet prices changed in an equally anomalous fashion. Early in 1915, Bessemer billets were quoted about 35 per cent higher than Bessemer pig iron; in July, 1917, they were quoted nearly 75 per cent higher. Billets which ordinarily sell for less than wire rods were bringing appreciably more in June and July of last year. Wire rods brought more than wire nails, skelp more than pipe, and galvanized sheets more than spelter.[1] The maintenance of relatively fixed prices for heavy, standard section, steel rails in a runaway market led to the curious phenomenon of Bessemer steel rails quoted at $38 per gross ton while Bessemer pig iron was bringing a price of nearly twenty dollars higher.

It was the extent, however, of the advance in prices rather than their anomalies that excited public attention. The high prices of earlier boom periods looked modest compared with those which prevailed during the months of June and July, 1917. The "bull" market of 1899 and 1900, which marks an epoch in the iron

which wire nails were produced was low in price, while the finished product was being sold by the pool at prices relatively so high as to be outrageous.

[1] The situation is discussed in part in the Iron Age, July 26, 1917, p. 260.

and steel industry and was accompanied by the formation of the great consolidations in the Middle West, shows nothing so spectacular as the price movements of a year ago. A comparison of the highest monthly averages in this earlier period with the average July quotations of last year for a few basic commodities will give some idea of the relative extent of this advance.[1]

TABLE II. AVERAGE JULY, 1917, QUOTATIONS, AND HIGHEST AVERAGE MONTHLY PRICES DURING 1899–1900

Commodity and place of quotation	Average price for July, 1917	Highest monthly average for period, 1899–1900	Months of highest quotation in 1899–1900
Bessemer pig iron, Pittsburgh, per gross ton	$57.45	$24.99	January, 1900
Southern, No. 2, foundry pig iron, Cincinnati, per gross ton	49.90	20.75 [2]	Oct.–Dec., 1899
Local foundry pig iron, Chicago, per gross ton	55.00	23.85	Dec., 1899–March, 1900
Bessemer steel billets, Pittsburgh, per gross ton	100.00	38.87	Sept., 1899
Soft steel bars, Pittsburgh, per cwt.	4.50	2.40	Sept., 1899
Tank plates, Pittsburgh, per cwt.	9.00	2.85	Sept., 1899
Beams, Pittsburgh, per cwt.	4.50	2.25	Sept., 1899–May, 1900
Wire nails, Pittsburgh, per 100 pound keg	4.00	3.20	Jan.–Mar., 1900

The great advance in prices was not primarily the result of any scarcity of raw material. Coke, it is true, showed a phenomenal increase in price, but the difficulty of supplying the urgent needs of furnace operators on account of inadequate transportation facilities explains in part the coke situation. Iron ore was supplied in tolerable abundance. It was not ore scarcity but steel scarcity that sent prices soaring. Mr. Davies of the Federal Trade Commission in his testimony before

[1] Quotations taken from the price statistics given in the Iron Age, January 3, 1918.

[2] Higher quotations are given for Southern, No. 2, foundry pig iron, in 1902. In October of that year the average reached $25.65. This situation, however, was exceptional, notwithstanding the fact that high prices prevailed in 1902.

the Senate Committee on Interstate Commerce, September 21, 1917, estimated that the needed increase in the production of sheets and plates in the immediate future would amount to 500,000 tons. The government demand for steel for ship construction was estimated to be in the neighborhood of 4,000,000 to 6,000,000 tons. "That increase takes out of the available supply for industrial and commercial uses a very much larger factor than has ever been taken out before. That reduces the amount that will be available for domestic and private consumption." [1] Blast furnaces and steel rolling mills were being put up as rapidly as possible to satisfy the new demands, but the work of construction and organization takes time. The facilities for furnishing manufactured material in their intermediate and finished stages, from the pig iron to finished product, were found inadequate in a situation where the raw product (iron ore) was readily obtainable.

Accompanying this increased demand for material for government uses was much competitive buying of crude and half-finished goods to fulfill contracts on finished goods already made for future delivery. A concern having such contracts and employing a large number of men would simply ask for pig iron or steel, making price a matter of secondary consideration.[2] A natural result was that prices bore little or no relation to cost of production. Even the man with highest costs in certain lines where the demand was particularly urgent was far from being a marginal producer — that is, a material reduction in prices would not result in his withdrawal from the industry.[3]

[1] Testimony of Davies before Senate Committee on Interstate Commerce, September 21, 1917, Iron Age, September 27, 1917, p. 745.

[2] Ibid.

[3] It is true that there were erratic individuals practically unacquainted with the language of steel who entered the business as a matter of speculation and whose costs

Early in July it become evident that the government would take a hand in regulating prices. Not only the public, but even steel manufacturers, were fearing the consequences of the unrestricted upward movement of the previous six months.[1] Furthermore, the situation was due in part to the large demands made by the government itself upon the steel manufacturing capacity of the country. By the first week in July, 25 to 30 per cent of the sheet mill capacity was thus occupied; probably two-thirds of the users of cold rolled strip steel were already producing for the government; and the Carnegie Steel Company was turning out material for the same ultimate buyer at the rate of 60,000 tons of plate and 15,000 tons of steel bars per month.[2]

The principal problems which confronted the government in fixing the prices of iron and steel were the following: — (1) the applicability of fixed prices to the general public and to our allies; (2) the basis on which prices were to be determined; (3) the question of contract obligations already entered into when prices were high; and (4) the problem of the jobber. Much concern was evinced by steel men regarding the attitude of the government toward these problems.

(1) With reference to the general applicability of the prices to be fixed by government agencies the attitude of the Administration became clear. The newly created War Industries Board made public the following: — " It is the purpose of the War Industries Board to carry out the policy recently announced by the President . . . that in the purchase of war materials in this country our Allies shall be charged no more than our own government has to pay. . . .

were high. Applied to steel men and men manufacturing or intending to manufacture steel as a regular business, the statement in the text is true.

[1] Iron Age, July 19, 1917, pp. 142, 143.

[2] Ibid., p. 36.

"But this policy has two important limitations. First, it must be reciprocal. The Allies must henceforth apply the same principle in dealing with their own producers and in selling to us and in selling to each other. Second, the arrangement must be limited to war materials, in order to protect our own industry. We must not allow raw material sold by our producers at prices patriotically conceded to our own government and its allies for war purposes to be diverted to industry and trade abroad which may come in competition with our own manufacturers and producers." [1] The War Industries Board declared that it might not have occasion to deal with the question of prices to be charged the public, but nevertheless directed attention to the following utterance of the President: "We must make the prices to the public the same as the prices to the government. Prices mean the same thing everywhere now; they mean the efficiency of the nation whether it is the government that pays them or not. They mean victory or defeat." [2] In the first public announcement of fixed prices, September 24, 1917, the War Industries Board declared that they should apply "equally to purchases by the government, its allies and the public," thus meeting the President's call in his proclamation of July 12 for "one price for all."

(2) The basis on which prices were to be fixed presented some difficulties. The Federal Trade Commission was employed in an investigation of costs of production, and questions were raised how far a cost basis should be applied at all, and if applied, what costs should be used as a basis. The Commission found great variation in costs among different companies — not only because of variations in the facilities for obtaining

[1] Quoted in Iron Age, August 16, 1917, p. 364.

[2] Ibid.

raw material and marketing the finished product, but from variations in purely manufacturing costs as well. In his testimony before the Senate Committee on Interstate Commerce, Federal Trade Commissioner Davies divided iron and steel producers into four classes based upon their degree of integration. The first class comprises those owning their own ore and transportation facilities for shipping their ore, their blast furnaces, their rolling mills and works for the manufacture of finished product. The second class has to buy its own ore and coke in whole or in part, but controls the other stages of production. The third class purchases its pig iron but manufactures its own steel. The fourth buys its steel ingots and billets, and rolls plates, shapes and other products out of the steel it purchases. The first class has the lowest cost, and the last, the highest;[1] and the last class makes up a fair percentage of the total number of producers.

Aside from the question of how far differences in cost can be accounted for by the degree of integration[2] the fact remains that costs vary greatly. Any attempt therefore to reduce prices to a cost basis must be undertaken with great care in order that production should not be curtailed. This caution in the interest of full productivity meant that no scaling down of prices to a pre-war level, or near a pre-war level, was possible. It was suggested that some sort of pooling arrangement among producers might be devised whereby the profits of low cost concerns would be shared with high cost

[1] Iron Age, September 27, 1917, p. 744.

[2] There is much confusion over the influence of integration on costs. The ordinary business man or corporation expects a return on the entire investment. These returns are not voluntarily cut out when an industry becomes highly integrated. The ore mines and blast furnaces are expected to yield a return as well as the rolling mill. There is, however, a saving in passing a product promptly from one stage of production to another, Thus the purchaser of pig iron gets his pig iron cold and there is the added cost of reheating in manufacturing steel which the steel worker who has his own blast furnaces does not have to pay.

operators.[1] The difficulty of such an arrangement, however, was apparent and it was not very seriously urged. The prices to be fixed must be sufficiently high to keep in full operation practically every mill and blast furnace which contributed appreciably to the country's supply. The fixing of prices in accordance with this policy, while criticized in some quarters as not sufficiently drastic, did materially reduce prices.

(3) The third problem, that of readjusting contracts already on the books at higher than the later fixed prices, presented considerable difficulty, altho it proved to be less serious than at first thought. From the outset it was felt that the government's act in fixing prices could not abrogate such contracts. At the same time what is the position of the buyer who has such a contract, compared with that of his competitor who had not bought ahead but would now be given the same prices as the government? Whether the number and importance of such contracts would be great depended, in the main, on what prices the government would fix. As a moderate policy was pursued, no serious damage was done to those who had already entered into such agreements. Where the prices which manufacturers were obligated to pay were higher than those fixed by the price-fixing committee, prompt and sure delivery compensated them for the added prices they had to pay.[2]

(4) The problem of the jobber or middleman was not such a serious one in the iron and steel industry as in many other industries, but in several lines it was, and in a sense remains, a problem. A price may be fixed for a producer, but where the product passes through the hands of the jobber to the ultimate consumer the

[1] Iron Age, March 14, 1918, pp. 700, 701. Discussion at March, 1918, meeting.

[2] The question is discussed in the Iron Age, July 19, 1917, pp. 142, 143. See also ibid., October 4, 1917, p. 832.

jobber's interest in the fixed price is that of purchaser and not that of seller. An interesting phase of this problem was the attempt of the American Steel and Wire Company, which controls over half the wire output of the country, to check the upward movement of prices by selling wire nails at $3.20 per keg when they were quoted at $4.00 per keg. Independents in several cases were selling wire nails at $4.00, and the jobbing trade began basing its sales to retailers on the $4.00 price at mill. Thus in several instances $4.50, and in Philadelphia, $5.00, were charged on sales to retailers. The moderate policy of the American Steel and Wire Company resulted in a readjustment of prices by jobbers, so that a spread of 40 to 80 cents per keg was simply added to the spread between the $3.20 mill price and the selling price to the retailers.[1]

The practices of trade with reference to dealers or jobbers were also phases of the same problem. Furnace coke is not usually sold through dealers, whereas the great bulk of foundry coke is. In fixing the necessary differential between furnace and foundry coke the dealer's compensation should be provided for. Again, a rule applicable to one class of dealers may not be applicable to another class. Foundry coke and steel bars or plates are both sold through dealers, but there is no relation whatever between the dealer in coke and the dealer in steel bars and plate. In the case of the former, business is often done on a brokerage basis, whereas in steel bars there is practically no brokerage business. There is furthermore the divergence with reference to price practices. The coke dealer or broker frequently buys at an inside price, or something less than that at which the coke operator would sell directly to a consumer, while the jobber in steel products often pays

[1] In Iron Age, July 19, 1917, p. 146.

a higher price than that at which the mill sells direct to the large consumer. It is the usual case in a rising market for mills to sell bars, sheets, etc., for shorter periods to jobbers than to manufacturing consumers. The jobber pays a higher price, but his business is profitable because he furnishes deliveries.

The middleman in certain branches of the iron and steel trade is still a problem, and there has been some disposition to criticize the price-fixing policy of the government in largely ignoring the importance of the jobber and trade practices of the kind referred to.[1] It must be said, however, that over a great part of the industry the middleman does not play anything like so important a rôle as in many other industries, and the problem of regulating prices in intermediate sales has been on the whole relatively simple.

Other questions in addition to the four mentioned were raised. The constitutionality of any law giving the President power to fix prices for the public and for our allies was debated at some length, especially in view of a bill introduced by Senator Pomerene giving the President practically the same power with reference to iron and steel products that the Lever bill had given him over food and fuel.[2] It was pointed out on the other hand that in the absence of any law giving definite authority to some governmental agency to fix prices and compel adherence to them, a simple agreement between such a body as the War Industries Board and the representatives of certain large producers would bind only the parties to the agreement. The question was also raised of the distribution of output in a market where the demand is greater than the supply and where the right to raise prices for prompt or early delivery is restricted.

[1] Iron Age, October 4, 1917, pp. 828, 829.

[2] Ibid., August 16, 1917, pp. 364, 378, and September 13, 1917, pp. 604, 605.

No formal authority was given the President by Congress to fix the prices of iron and steel. Conditions apparently demanded action, and as has already been indicated, general statements of price policy were announced by President Wilson and also by Secretary Baker.[1] Conferences were held in Washington between government heads and steel manufacturers. The reports of the Federal Trade Commission on iron and steel costs were turned over to the War Industries Board, which in conference with steel men agreed upon a schedule of maximum prices for certain basic commodities, the schedule to be followed by other maximum prices as proper differentials were determined upon by the board. The first price announcement was made on September 24, 1917, following a meeting of the War Industries Board with a large number of representative iron and steel manufacturers. President Wilson formally approved the prices agreed upon and in connection therewith made the following statement: "It was first stipulated that there shall be no reduction in the present rate of wages; second, that the prices named should be made to the public and to the Allies, as well as to the government; and third, that the steel men pledge themselves to exert every effort necessary to keep up the production to the maximum of the past, so long as the war lasts. Measures will be taken by the War Industries Board for placing orders and supervising the output of the steel mills in such a manner as to facilitate and expedite the requirements of the government and its allies for war purposes, and to supply the public according to their public importance and in the best interest of all, as far as practicable. A spirit of coöperation was manifested by the steel men, and no doubt is entertained that every effort will be made to

[1] Iron Age, July 19, 1917, pp. 142, 143; August 16, 1917, p. 364.

bring the production as nearly as possible up to the extraordinary demands resulting from the war." [1]

The first publication of prices covered a small number of basic commodities, all except one representing material reductions from the prices prevailing during the summer. These prices were to become effective immediately and were subject to revision on January 1, 1918. They were as follows: [2]

TABLE III. PRICES FIXED SEPTEMBER 24, 1917 AND AVERAGE JULY QUOTATIONS

Commodity	Basis	Price agreed upon	Average July price
Iron ore (non-Bessemer, 51.50 per cent iron), per gross ton.	Lower lake ports.	$5.05	$5.05
Coke (blast furnace), per net ton.	Connellsville.	6.00	12.75
Pig iron (No. 2, foundry and basic), per gross ton.	Valley and Chicago.	33.00	52.50 to 55.00
Steel bars (not including sheet steel and small shapes under 3 inches per pound), per cwt.	Pittsburgh or Chicago.	2.90	4.50
Shapes, per cwt.	Pittsburgh or Chicago.	3.00	6.00
Plates (3/16 inch thick or heavier), per cwt.	Pittsburgh or Chicago.	3.25	9.00

The reductions were particularly noticeable in the case of coke and plates, where they were scaled down over 50 per cent below the July level. Before the public announcement, however, of the prices agreed upon by the War Industries Board and the steel men, quotations had begun to exhibit a downward movement. The average prices for August, tho still very high, were in the case of most commodities somewhat lower than those

[1] Quoted from "The Story of Price Fixing," in Complete List of Base Prices, Differentials and Extras on Iron, Steel, and Non-ferrous Products, published by the Penton Publishing Company, Cleveland, Ohio.

[2] Iron Age, September 27, 1917, p. 756, and October 4, 1917, p. 833; also Complete List of Base Prices.

prevailing in July. Coke was exceptional in showing a higher level for August than for July.[1] The average quotations for September were still lower, tho on some commodities they were as high as the June prices, and in the case of a few articles even higher. On September 20, four days before the first publication of fixed prices, basic pig iron at Valley furnaces was quoted at $42.00 per gross ton and No. 2, foundry pig iron, Chicago, at $54.00. Soft steel bars, Pittsburgh, were quoted at $4.00 per hundredweight and tank plate at $8.00 per one hundred pounds.[2] The reductions made by the new schedule were, therefore, material even in the market as it existed in September.

It should also be noted that the decline in market quotations was probably in large part a result of the agitation for government regulation of prices in the industry. By July, as has already been noted, it was felt that the time was near at hand when iron and steel prices would be fixed by some public agency. The government itself was already purchasing a large percentage of the iron and steel supply of the country, and on the theory that where the government is a large enough buyer to affect materially the prices paid by the public it should protect that public from extortion,[3] regulation was held to be inevitable. The bill introduced in the Congress by Senator Pomerene[4] giving large powers to the President to name iron and steel prices and to commandeer plants in the interest both of government use and of reasonable prices, voiced a very general sentiment in favor of regulation. Public senti-

[1] See Iron Age, January 3, 1918, tables on pp. 68, 69, and 70.

[2] Quotations in Iron Age, September 20, 1917.

[3] The writer heard this argument used by a member of the price-fixing committee of the War Industries Board in theoretical justification for interference in the iron and steel industry.

[4] A very full discussion of this bill is contained in the Iron Age, August 16, 1917, pp. 364 and 378.

ment, therefore, rather than a less urgent need for steel on the part of consumers or a relatively more bountiful supply of material, was reflected in the sagging prices of August and September.

The prices which were fixed in September represented a compromise between the persons who would have reduced prices to some sort of cost basis and those manufacturers of steel who apparently felt resentment at being obliged to sell to the public at the same prices they were receiving from the government.[1] The new schedule, while representing a radical reduction in current quotations was not low, even when making allowance for the higher costs of production under war conditions. For a time it was declared that the elaborate investigations of the Federal Trade Commission concerning costs had gone for naught and that the agreed prices should have been materially lower.[2] The new prices, too, looked high to those who were familiar with pre-war conditions, as the following comparison shows:

TABLE IV. GOVERNMENT PRICES AND AVERAGE QUOTATIONS FOR YEARS 1911–1914

	Average for years, 1911–1914	Government price, Sept. 24, 1917
Mesaba ore, non-Bessemer, per gross ton	$3.15	$5.05
No. 2, foundry pig iron, Chicago, per gross ton	14.90	33.00
Basic pig iron, Valley furnace, per gross ton	13.64	33.00
Soft steel bars, Pittsburgh, per cwt.	1.31	2.90
Beams, Pittsburgh, per cwt.	1.32	3.00
Plates (tank), Pittsburgh, per cwt.	1.32	3.25

The public announcement of September 24 resulted in some readjustment of prices on commodities other than those named in the schedule. The radical changes,

[1] Iron Age, June 6, 1918, p. 1490.

[2] Ibid., November 29, 1917, p. 1333, and December 6, 1917, p. 1372.

however, were made by the War Industries Board in conference with the steel men and with the approval of the President. About the middle of October, prices were fixed for blooms, billets, slabs, sheet bars, wire rods, shell bars, and skelp.[1] The price of Bessemer billets, which had soared to $100.00 per ton in July, was fixed at $47.50 (Pittsburgh and Youngstown).[2] This was characterized in the Iron Age as "a surprising low billet price," altho the average quotations for the four years 1911–14 had been $22.42.[3] The reduction on wire rods was not so great, the Pittsburgh price being fixed at $57.00.

A further announcement of prices was made on November 5, by the President on sheet, tin plate, wrought iron pipe, cold rolled steel, plain wire and scrap. In making this announcement President Wilson said, "In connection with the above, the iron and steel manufacturers have agreed promptly to adjust maximum prices of all iron and steel products other than those which prices have been agreed upon. It is expected that this will be done promptly and consistently in line with the basic, intermediate and finished products for which definite maximum prices have been established."[4] The significance of this utterance was the transference to the steel industry itself of some of the responsibility for the completion of the adjustment of all mill and finished products in conformity with the prices formally agreed upon and previously announced. Over this work the American Iron and Steel Institute through its general steel committee assumed the executive supervision.

[1] Iron Age, October 18, 1917, p. 946.

[2] Ibid.

[3] Ibid., October 4, 1917, p. 833.

[4] Quoted from Complete List of Base Prices, Differentials, Extras on Iron, Steel, and Non-ferrous Products Fixed under Government Supervision.

Announcements of prices were published from time to time, practically all showing material reductions from current quotations. Wire nails, which had risen to $4.00 per 100-pound keg in July, were reduced to $3.50, a reduction less drastic than many others. There was a marked disposition to make allowances in the spreads between various crude, half-finished and finished articles, in behalf of manufacturers with recent additional mill capacity entailing high capital charges. On the score of accelerating and enlarging mill operations, may be accepted $47.50 for billets on the one hand and $58.00 and $60.00 for bars and beams on the other — likewise $50.00 for slabs, against $65.00 for plates. This tendency was noticeable in the later published announcements on the more highly finished articles, particularly where the demands of the government had resulted in a material enlargement of mill capacity.

The prices named in the fall of 1917 were all subject to revision on January 1. Before the close of the year, however, it became evident that the prices already fixed were to remain during the succeeding period, which was also of three months' duration. On the recommendation of the War Industries Board President Wilson on December 28th ordered that the various maximum prices should be continued in effect without change until March 31, 1918. At the same time an important ruling was made on the subject of contracts, which provided that, " No new contracts calling for delivery of any said commodities or articles on or after April 1, 1918, are to specify a price unless coupled with a clause making the price subject to revision by any authorized United States government agency, so that all deliveries after that date shall not exceed the maximum price then in force, altho ordered or contracted for in the mean-

time."[1] The question of contract obligations based upon prices higher than those sanctioned by government was thus taken care of for the future. While there was still some complaint that the problem of dealing with contracts entered into during the summer when prices were at their height had not been properly faced and solved, it developed that most of these obligations were at prices little, if any, in excess of those agreed upon by the War Industries Board.[2]

The interest in the conference called for March 20 to determine prices after the expiration of the then existing schedule was concentrated mainly upon two points, the price tendency of the schedule to be revised, and the period during which it should be in force. There was also some discussion of the question of pooling the output of producers so that large and small manufacturers alike might secure a reasonable margin of profit while production would be kept at its maximum. The pooling plan while talked about did not win much favor.[3] With respect to price tendency much evidence was brought forth to show that costs had materially increased, especially during January and February. It was shown, however, that conditions during these months were abnormal on account of the exceptionally severe winter and the inadequate transportation conditions. It was further maintained that the following six months should show a downward trend in costs. The price-fixing committee of the War Industries Board therefore ignored cost sheets showing rapidly rising figures, and also suggestions from small producers of substantial increases in certain finished products, as well as the more urgent

[1] Complete List of Base Prices, Differentials and Extras on Iron, Steel, and Nonferrous Products.

[2] See statement concerning such obligations by government representative, Iron Age, October 4, 1917, p. 832.

[3] Iron Age, March 14, 1918, pp. 700, 701, and March 28, 1918, p. 800.

demands from manufacturers obliged to buy their pig iron for a considerably greater increase than one dollar per ton spread between pig and plates and shapes.

The period during which the new prices should be in operation was discussed from the standpoint of the desirability of stable prices. It was held by some that three months constituted too short a time to ensure a feeling of stability, and a six months' period was advocated.[1] This plea was rejected; and it was humorously suggested that the steel men might have cause to regret tying themselves up for six months to a fixed schedule of prices when their cost sheets showed such rapidly rising costs.

On March 27, announcement was again made of the prices to be charged for iron and steel after the expiration of the schedule then in force. The period as heretofore was fixed at three months — from April 1 to July 1. The announcement was an approval of "the recommendations of the price-fixing committee of the War Industries Board that the maximum prices heretofore fixed by the President upon the recommendations of the Board upon ore, coke, steel and steel products, published subject to revision on April 1, 1918, be continued in effect until July 1, 1918; that from April 1 to July 1, however, the maximum price of basic pig iron be reduced from $33.00 to $32.00 per gross ton and that the maximum price of scrap steel be reduced from $30.00 to $29.00 per gross ton."[2] The price of Bessemer pig iron which had been $37.25 under the previous arrangement was also reduced to $36.15. As in the announcement of the previous December a provision about contracts was incorporated, specifying prices on deliveries on or after July 1 to be subject to revision by any authorized United States government agency.

[1] Iron Age, March 28, 1918, p. 800. [2] Ibid., March 28, 1918, p. 800.

A list of the base prices, differentials and extras, which have already been fixed by the War Industries Board and approved by the President would cover pretty generally the important raw, intermediate and finished articles which sell as iron and steel. A conspicuous exception to this statement is heavy, standard section, steel rails.[1] From April, 1901, to May, 1916, this important steel product was quoted at $28.00 per gross ton, Eastern or Pennsylvania mill. In May, 1916, the price of Bessemer rails was raised to $33.00; open hearth, to $35.00 per gross ton.[2] Before the close of 1916 these prices were again raised to $38.00 and $40.00, respectively. All through 1917 these figures remained the quoted prices, altho for prompt delivery the charges were much higher, one railroad company paying as much as $85.00 per gross ton for 700 tons of rails.[3] Early in 1918 the quotations on heavy, standard section, steel rails were raised to $55.00 for Bessemer, and $57.00 for open hearth, and these prices prevail at the present time (June, 1918).

On June 25 it was announced that the existing schedule of controlled prices would be continued for three months from July 1, except that Lake Superior iron ore would be advanced 45 cents per gross ton, subject to changes in freight rates that may be made hereafter, and that the sole basing point for steel bars, shapes and plates would be Pittsburgh — Chicago being eliminated. These changes were accorded approval by the President. The provision with regard to contracts calling for de-

[1] Rails are classified into light and heavy according to their weight per lineal yard. The dividing line is usually made at 40, 45 or 50 pounds per yard. The weight per lineal yard of rails used by our principal railroads is 85 to 100 pounds. Light rails are used in mining and other industrial operations and constitute a small fraction of the rail output. The price of light rails was fixed on a base of $3.00 per 100 pounds, f.o.b. maker's mill.

[2] In the Iron Age these quotations were given for a time by the pound. The May, 1916, quotations were Bessemer, 1.47½ cents, and open hearth, 1.56½ cents per pound.

[3] Iron Age, January 3, 1918, p. 56.

livery on or after October 1, like the corresponding provision in the December and March announcements, required that no price was to be specified unless it was coupled with a clause making such price subject to revision by the proper government agency. Following the conference fixing prices for the next three months, Chairman Brookings of the price-fixing committee appointed a sub-committee to negotiate with the committee on steel and steel products of the American Iron and Steel Institute for fixing prices on steel rails, steel castings, malleable castings, wire rope and certain other unspecified articles. Prices on these articles are to be promulgated as soon after July 1 as possible.[1]

In the fixing of prices there has been less friction than had been expected, in view of the great importance of the iron and steel industry and its great ramifications. There has been a spirit of coöperation, and to some extent, a willingness to subordinate immediate prospects of gain to the larger interests of the country. The prices have, in a sense, been self-imposed, and have been named by representatives from both large and small concerns. While public sentiment was in favor of price regulation and was making itself felt in governmental quarters, the adjustment was carried out without compulsion on the part of the government and apparently without formal legal authority. The adjustment was doubtless facilitated by the high degree of organization attained by the iron and steel industry in this country and by the realization on the part of the producers of the ill effects of fluctuating prices and runaway markets.

It is too early to speak of the effects of regulation upon output, but a few facts may be cited to show that thus far production seems to be at its maximum. The pig iron output for the calendar year, 1917, during three

[1] Iron Age, June 27, 1918, p. 1686.

months of which price regulation was in operation in the industry, fell a little below that of 1916 — the figures being 38,700,000 tons and 39,435,000 tons, respectively. It should be remembered, however, that during December transportation was seriously interrupted, and the assembling of material necessary to manufacture, impeded. The steel ingot production for 1917 amounted to 42,400,000 tons, the greatest on record, and nearly 1,000,000 tons more than that of the next most productive year, 1916.[1] During the first two months of the present year the same conditions with reference to transportation prevailed, tho in a more accentuated form, as existed in December, 1917; but during March, April, and May, 1918, the available figures for pig iron show a very large output. A comparison of the average daily output of this product for each of the first five months of 1918 with the average daily output of the last five years will give some idea of the present rate of production as compared with that of the past. This comparison is made in the following table:[2]

TABLE V. AVERAGE DAILY PRODUCTION OF PIG IRON IN THE UNITED STATES IN THE YEARS 1914, 1915, 1916, 1917 AND 1918 (FIRST FIVE MONTHS) AND IN THE FIRST FIVE MONTHS OF 1918

Year	Average daily production (Tons)	Months 1918	Average daily production (Tons)
1914	62,934	January	77,523
1915	81,022	February	82,794
1916	106,610	March	103,548
1917	104,562	April	109,112
1918 (5 mos.)	97,039	May	111,232

It will be seen that the daily average for January, 1918, while low, is higher than the daily average for the year 1914. For April and May during the present year

[1] Iron Age, January 3, 1918, p. 55.

[2] Figures taken from the Iron Trade Review, June 6, 1918, p. 1417.

it was higher than the same average for any year since the beginning of the war. During May the average daily production of pig iron in the United States was greater than during any other month in the history of the country with the exception of October, 1916, when the average was 113,167 tons. In the face of these figures it cannot be contended that the fixing of iron and steel prices has thus far shown any tendency to cause curtailment of output.

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PERISHABLE PRODUCE UNDER FOOD REGULATION

SUMMARY

Stabilization of perishables aimed at; regulations to this end, 621. — Characteristics of the market for perishables, 623. — Fair prices determined at short intervals by agreement, 625. — Rejection of goods shipped, 628. — Salutary action of Food Administration, 629. — Methods of marketing, 631. — Conclusion, 634.

STABILIZED prices on perishable commodities have, for short periods of time, been an accomplishment of food administration, notwithstanding that under normal conditions, prices of such goods fluctuate violently over periods of the same length. The effort to stabilize prices on such commodities has necessitated adjustments to higher or lower levels; yet these adjustments, tho sudden, have been no more so than those which have occurred under the normal competitive conditions. Indeed, for the dealers themselves, they have probably occasioned smaller losses, and for the consumers an undoubted gain. Sudden breaks in prices have been a familiar characteristic of the perishable produce market. Through the efforts of the Food Administration to stabilize prices, the peaks of the curves of the fluctuating prices have been taken off and replaced by a comparatively even level. Under the conditions of a highly competitive market, sudden breaks in prices of this sort have meant large losses to some, and large gains to others. The speculative character of the perishable produce market has been greatly modified, and for the dealers themselves a more even range of profits has been substituted.

There is no direct authority to fix prices in the Food Law of 1917, and whatever results have been secured with respect to prices and therefore profits have been secured through coöperation with the trade groups for the purpose of stabilizing prices for short periods. The beneficial results which have undoubtedly been secured for the producer, distributor, and consumer have resulted from a decided modification of the risk associated in the past with the production and distribution of many food commodities. There has been much indiscriminate criticism of the speculator in marketing, and his influence on prices. Commodities of seasonable production necessarily entail a risk in marketing which must be paid for by the consumer.

The Food Administration very wisely made a distinction between perishables and non-perishables. In the administration of the law, the policy of stabilizing prices has given consideration to this difference. In addition to the general provisions of the Food Law prohibiting the willful destruction of food, its waste, or its preventable deterioration, as well as hoarding, manipulating, charging unjust or unreasonable prices, special rules have been made governing the marketing of perishable produce. The most important of these are as follows:

1. Practically all dealers in perishable produce, except farmers, gardeners, common carriers, and retailers doing less than $100,000 of business annually, must be licensed.

2. The licensee shall not ship or sell for food purposes, potatoes which are not practically free from disease, injury or decay, nor shall any fresh fruit or vegetables be shipped which are not of the grade, quality or condition specified in the contract.

3. A contract for the purchase of fresh fruit and vegetables cannot be cancelled after the goods are loaded and

under billing, without the consent of the other party to the contract.

4. The licensee cannot, without reasonable justification, refuse to accept and unload promptly any fresh fruit and vegetables, and if such produce is refused, the consignor must be promptly notified.

5. In every contract for sale of fresh fruit and vegetables, certain provisions must be included — such, for example, that the seller will reimburse the buyer for any failure of the goods to conform to the grade, quality, and condition specified, except that all f. o. b. point of origin sales are construed to mean that the buyers assume all risks of damage in transit; but the consignee must, after notice from the consignor of the shipment, locate the goods after arrival.

It is manifest from the general character of the preceding regulations and the nature of perishable produce, that the enforcement of these rules has had to be delegated in an unusual degree to the local food administrator.

Any regulation of the marketing and prices of perishables presents peculiar difficulties. In the first place, perishables in this country are transported long distances. The general high standard of living of the American people creates a demand for perishables throughout the year, regardless of their place of production, and the wonderful development of the refrigerator car service and an excellent transportation system make possible the satisfaction of this demand. Not infrequently there are cases where the transportation cost equals or exceeds the cost of the perishable at point of shipment.

In the second place, it is difficult to apply the fair price principle to perishables. Such commodities must move rapidly through the channels of trade. There is often no

relation between cost of production price and market price, even from the standpoint of the producer. Any price realized in a local market at a time of glut when complete loss is promised is often an advantageous price both for the producer and distributor.

The Food Administration has taken these facts into consideration in issuing regulations governing the marketing of perishables. Resales within the trade, for example, are not restricted, as in the case of non-perishables, since perishables must be kept moving to the consumer. Rejection of shipments is strictly regulated.

Any effort to stabilize prices of perishables must be based on two important facts: first, to have any large measure of success, it must be limited to short periods; and, second, any stabilized prices must provide for margins of profit sufficient to compensate the dealer for his inevitable periods of loss.

No producer or dealer wishes to glut a market, but there is at present no means of knowing how much perishable produce will be on a particular market at any particular time. The Market News Service of the Department of Agriculture and other agencies of this department are doing much good work in securing the best economic distribution of perishable foods; but the situation is very complicated. Each dealer buys the quantity which he thinks he can advantageously sell, but he knows very inaccurately what others have bought for delivery in his local market. Producers or dealers near the point of production are sending perishables into the market without knowing accurately the condition of supply in a particular market. Often goods are sent on consignment, or they are sent out from the point of production towards markets with the intention of diverting them in transit. Six carloads of cabbage

were sent to a primary market on consignment, and when they reached the market, the market was so glutted and the cabbage became so deteriorated before it could be sold, that the price realized did not pay the transportation cost.

The Central Food Administration, at Washington, D. C., has made little or no endeavor, except in one or two cases, to fix or stabilize prices on perishable produce. The most important exception was in the case of storage eggs and poultry. In conference with the dealers in the leading markets, a fair price, which was to continue until the close of the spring season of 1918, was agreed upon for those products. Under the supervision of the local food administrator, the poultry and egg dealers very generally observed this agreement. It should also be stated that certain percentages of profit have been fixed for the different classes of dealers who are placing eggs in storage for use during the season of 1918–19. Other regulations have been made which are in some cases compulsory and in others voluntary.

It is in connection with the work of the local food administration in the larger markets that prices on perishable produce have been most directly effected. One of the most common ways in which this has been accomplished is as follows.

A Fair Price Interpreting Board is organized, composed of the food administrator, wholesale and retail dealers, and consumers. This Board meets weekly or bi-weekly and agrees upon a fair price for potatoes, butter, eggs, cheese, poultry and other perishable produce. These fair prices are binding upon all parties. The consumer and the retailer lodge complaint if they are charged in excess of the fair prices. The wholesaler objects if the prices are too low. Since the prices are determined by agreement with the representatives of

the trade and consumers, the Food Administration considers any excess price an unfair one. Enforcement is secured by one of the following methods: a warning; suggesting a voluntary payment of a fine, which is usually accepted; prosecution for profiteering; revoking the license; posting the place of business as a violator of the food regulations; closing the place of business for a short period. The widest publicity is given in the press to these fair prices. If such a Board meets only once a week, there may be need of changing prices during the interim if the perishable produce market on a particular commodity is irregular. Careful judgment must be exercised in arriving at these fair prices.

The factors determining the price of perishables are numerous and complex. These factors are not confined to any one local market; some are of a general character. For example, the price of eggs in February and March practically always has an abrupt break. This is determined in part by the quantity of eggs in storage and the rate of movement out of storage, and in part by weather conditions. If there is a period of warm weather early in the season, the increase in the number of new eggs becomes marked and they are shipped by express to the primary markets to take advantage of the high price on storage eggs on hand at the end of the season. Hence, there results a " break " in the price of eggs, and dealers having storage eggs lose heavily, or by the time the new supply reaches the primary market the price goes off and the dealer in new eggs may also lose. Periodic losses to distributors of perishable produce thus occur and no organization of the produce market can anticipate these unpreventable conditions. The margin of profit, therefore, for such dealers must at different times be unequal and stabilization of prices must be confined to short periods.

Even an agreed-upon fair percentage of profit over cost on perishables would require careful application. For example, 10 per cent to a jobber may be a fair margin of profit on which to distribute potatoes in April, but when new potatoes begin to come into the market, they are likely to have considerable mud on them, and the car lot shows a heavy shrinkage when it is sorted and distributed to the trade. The jobber has purchased not only potatoes, but dirt, which he cannot pass on to the wholesaler and retailer, for the grocer selling in small lots to the consumer must sell potatoes. The weight of the dirt and its price, therefore, must be absorbed by some one between the producer and consumer. The latter will not absorb it; and it is not economical for the producer at the time of loading to clean the wet dirt from each potato.

The perishable produce market is also characterized by a high degree of competition, not only in each local market, but also among the different primary markets. The organization of this market in cities, again, differs considerably. There may be and often is a produce exchange dealing in such perishables as cabbage, potatoes, apples, and similar products; a fruit exchange specializing in oranges, pineapples, lemons, and other citrus fruits; and a butter, egg, and cheese exchange; or there may be other separate exchanges or produce markets in which are various combinations of the perishables and non-perishables. There is no uniformity in the organization of these markets in the United States. Within or on the market as dealers will be found the jobber, either as a carload or part carload jobber, the broker, and the wholesaler, altho any one of the dealers may do more than one of these kinds of business. These exchanges meet daily as buyers and sellers of the produce they distribute. Competition is very keen, and

not infrequently sharp bargaining is found. Prospects of large profits or large losses are often immediate. Many contracts of sale are oral, and with a rising or falling market the opportunity and inducement for sincere and insincere differences of understanding of the conditions of sale are frequent.

One of the greatest evils which has grown up in the perishable produce market is that of rejection. If the market has fallen or is falling, the temptation on the part of the buyer to reject produce purchased on a higher market is great, and rejection had become a too prevalent practice on all perishable produce markets. The consignee, or buyer, would in some cases allege the produce was not up to grade, or in other cases he would bluntly tell the consignor or broker, that he would not take it. This was an extra-legal procedure in many cases, but the expense and delay in suing the consignee were often so great that the broker, or the consignor if there was one, would sell his produce at the lower market price to another dealer in order to get some return. If there was no representative of the consignor in the local market, it would often be abandoned to the railway for freight charges. The railways would generally turn the produce over to some salvage organization which specialized in rejected freight. Such procedure resulted not only in great losses to consignors, but also in the loss of much perishable produce to the consumer.

This pernicious and illegal practice has been decidedly modified under the regulations of the Food Administration by requiring consignees to meet their obligations under the penalty of having their license revoked. It has just been noted that competition of dealers in perishable produce was very keen. Little coöperation or uniform procedure or agreement could be

secured. Many dealers were of small financial responsibility, and hence a judgment by the courts would often be worth little. But all are licensed under the food regulations, and the desire to continue in business made possible certain reforms in business practice. This is only one of the numerous constructive results of food administration which promise to be permanent. It is not intended, however, that under the Food Law Regulations the consignee shall be placed at the mercy of the consignor. There have been numerous cases where the seller has attempted without reason or right to bring pressure on the buyer through the Food Administration. Producers finding themselves with an unusually large crop of perishable produce on hand have been tempted to load and grade it carelessly, and send it to a market in the hope that the consignee will take it or can be made to take it. The producer has then sought to use the Food Administration as a club to compel the consignee to take perishable produce of a grade or a condition not ordered; and much care has had to be exercised to see that justice is done to both parties.

The following typical cases are selected from those affecting over 2,000 carloads of perishable produce about which there was disagreement during the period of six months in the St. Louis office:

Case A: Six carloads of potatoes are sold by X, of Denver, to Y, of St. Louis, in March. Y alleges upon arrival that the potatoes are not the grade purchased, and that their condition upon arrival is bad. There has been a long delay in transit and the temperature has been very low. The sale was made f. o. b. point of origin. Y rejects potatoes, wiring the consignor and notifying the local food administrator. The consignor appeals to the Food Administration in Washington. It refers the whole matter to the local food administrator. In the

meantime, the potatoes have been inspected by order of the St. Louis Food Administrator, and the inspection shows that part of the potatoes are not up to grade, part of them are field frosted, and part have been frozen during the delay in transit. The local food administrator secures an agreement from the consignor and consignee that he act as arbitrator, whereupon the bank which holds the draft on Y, the consignee, releases the car, retaining the draft pending the adjustment by the local food administrator. After final investigation the consignee, Y, is ordered to take all the potatoes which are up to grade, at invoice, sorting all the potatoes at the expense of the consignor, X, and selling all not up to grade for the account of X. The money in the bank is distributed on this basis.

Case B: X, a producer, sends three cars of perishable produce, billed to himself, to a market, and notifies Y, his broker, to sell them. Y quotes a price to Z and represents the produce as of a certain grade. Y, the broker, telegraphs to X that Z takes the car at a price higher than Z agreed to pay. The broker orders his principal, X, to draw on Z for the value of the three cars. Z finds both the grade and price different from his terms of purchase from the broker and rejects all three cars. The case comes to the food administrator. The broker, Y, is not financially responsible, and the facts show that Z is justified in the rejection. The food administrator notifies X, the consignor, and aids in selling the produce, later recommending that the license of Y, the broker, be revoked.

Case C: X buys a car of rice of a certain grade f. o. b. point of origin on a special contract which provides for arbitration in a case of disagreement. Upon arrival X rejects the rice, alleging that it is not up to grade, but he refuses to permit the Arbitration Board of the Local

Dealers' Association to pass on the car. The case comes to the food administrator, who appoints as his arbitrators the members of this local trade board. Their findings are against X. Therefore he is ordered by the food administrator to accept the car at the invoice price.

It will be understood that in all the cases of perishable produce which are adjusted or handled by the food administrator, nothing is done which prevents the consignor or the consignee from bringing suit in the courts. The prime purpose is to save food and in cases of perishable produce prompt action is necessary. The courts remain open to either party to a controversy. Nor does any action of the Food Administration in such cases prejudice any claim of either party against the railways for damages and losses during shipment.

Perishable produce may be sold on many different contracts, of which the following are the most important in a consideration of the regulations of the Food Administration:

1. F. o. b. point of shipment. In this case (assuming the product is loaded properly and is up to grade), the consignee must bear all losses of deterioration during shipment. He has, of course, a claim against the railroad if there has been undue delay in transit. It is also assumed that the consignee will be notified of the date of shipment by the consignor and date of arrival by railroad, altho this does not mean arrival on team track. The consignee must see that the car is "spotted."

2. F. o. b. point of shipment (*with inspection allowed point of arrival.*) This is a modification of the above terms of sale in favor of the consignee, in that the consignee is permitted inspection upon arrival. Deterioration in transit, due to delay, may be a risk borne by

either the consignor or consignee, depending on the other specific terms of the contract of sale, altho in most cases the burden of this risk rests on the consignor.

3. Consignments. The consignor sends the produce to a market to have it sold in the local market for his account, and hence all risks as to condition on arrival or grade are borne by him, altho he may have a claim against the railway for delay in transit or for other reasons. Not infrequently it is consigned to himself, for the shipper often has no regular representative in the market.

4. Brokerage or commission sales. The produce is sent to a market to be sold by the specific representative of the consignor. He may bill the goods to himself or to the broker. The broker often sells the goods for the consignor before they are shipped and then they may be billed to the purchaser on an f. o. b. point of origin sale or local inspection allowed.

5. Not infrequently perishable produce will be sent out from the place of production, billed to the consignor or to a broker at a particular market, but with the purpose of diverting it in transit. Difficulty often results in these cases in deciding who shall bear the loss of deterioration in transit. In general, it may be stated that the consignee is in no event responsible for any deterioration which has occurred before his actual purchase, that is, he is responsible only for the deterioration which occurred from the time of diversion to the time of receipt. And yet to decide a particular case is often difficult, for not only may a delay in transit be in question, but also the grade of the commodity. So far as the sale is concerned, there is only one shipment, but from the viewpoint of the buyer there have been two: the one to point of diversion, and the other from the point of diversion to the receiving point.

The Department of Agriculture has carload lot inspectors in many of the primary markets for perishable produce, and their services in supplying an official inspection have been invaluable. If there could be in all the chief centers of production of perishable produce similar inspection of grading and loading, it would reduce to a minimum disputes regarding grade and condition of produce. It would not solve the problem entirely, for there would still be delays in transit, as well as deterioration, even during expeditious transit, owing to the highly perishable character of the produce. For example, during the spring of 1918, Texas onions were loaded in good condition; but owing to the normal water content of the onion and the heavy rains preceding the harvest, many decayed before they could be placed on the market. One of the conditions which during the past year has made difficult the handling of perishable products has been the shortage of cars and the congestion of the railways. Terminal congestion was so great that perishable produce often lay in the yards for days.

If rejection by the consignee is permitted under the Food Administration regulations, it must be done promptly. The consignee is given twenty-four hours to do this and the consignor must be notified. The Food Administration is notified and may aid the consignor to dispose of the produce, or, if the consignee has no right to reject, he is ordered to handle it. Very great promptness must be used in all such cases, for after deterioration in perishable produce begins, its progress is usually very rapid. After it has proceeded very far, the cost of sorting the good from the bad produce is often much greater than the value of the marketable part and therefore the whole car lot goes to the garbage. This accounts for the newspaper and current reports that good produce is often thrown away. It is good produce, but

if the consuming public had to pay the charge for sorting it, the price would be increased by this added cost, and the small addition to the supply would not lower the general price sufficiently to make up this difference.

After a year of food administration, several observations may be safely made:

1. The regulations have met with surprisingly little opposition on the part of the dealers, and in particular, have not produced as many unfavorable results on trade profits as was predicted at the time of initiating food control.

2. Many of the regulations have directly and indirectly resulted in improvements in trade practice. They have especially been productive of increased efficiency in many individual businesses. Many dealers have been forced to give attention to wasteful business practices. Record keeping, and therefore cost analysis, have been greatly stimulated.

3. Prices have fluctuated less violently, with no great loss and probably gain both to dealers and to consumers.

4. Retailers and consumers have, under the food regulations, learned more about food values, grades of produce and methods of marketing than they would have learned under normal conditions extending over a long period of time.

5. A considerable measure of the success in curtailing consumption and regulating prices has been due, it must be admitted, to a modification of the normal economic motives, which will again reassert themselves after the close of the war.

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FEDERAL FOOD ADMINISTRATOR
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THE DISTRIBUTIVE RELATIONS OF INDIRECT GOODS

SUMMARY

The relative movements of products and costs as related to crises; various views, especially Carver's positions, one of which was underwritten by Mitchell, 635. — Prices and wages, prices and consumers' goods, prices and margins, prices and titles of ownership, 638. — The widening margins of good times; material costs versus wage costs, 643. — The narrowing margins of bad times; materials versus labor, 645. — Remoteness as a distributive category, 646. — Varieties of raw materials and of appliances, 648. — Speculation as explanation for the statistics, 654. — Divergencies between dates of contracts and of quotations and between the unlisted manufacturers' prices and the listed wholesalers' prices as probably the main explanation, 660.

It was not unfamiliar two decades ago that booms in the stock market arrive in good times and that panics and the crumbling of stock quotations befall with crises. Robertson and Hobson had still earlier noted the tendency toward overextended investment in equipment goods. Was this tendency chronic or only occasional? How far had it to do with business reactions? Or rather was it a cause of continual stagnation — in either case an industrial rather than a financial phenomenon? Professor Carver in 1903 found the explanation partly — perhaps, however, primarily — in fluctuations of earning power and of dividends, partly in a consistent overvaluation of existing properties or of existing equipment goods, partly in an overextension in the volume of investment in these equipment goods.[1] Professor Veblen in 1904 placed his emphasis on the revaluation

[1] "A Suggestion for the Theory of Industrial Depressions," Quarterly Journal of Economics, May, 1903, vol. xvii, p. 497.

process.[1] It is perhaps fair to say that the position of Professor Carver is of especial interest at the present time in view of the fact that his views have gained the support of the commanding authority of Professor Mitchell in this field.[2] It is therefore to the present purpose to determine precisely the position or positions taken by Professor Carver.[3]

The point of departure with Professor Carver is the demonstration that slight changes in selling prices may involve large changes in unit margins and enormous variations in business gains or corporate dividends. If, for example, the shoes that have sold for $2.25 with a margin of gain of twenty-five cents are now selling at $2.50 with a margin of fifty cents, the earnings of the business may double without any change in the volume of concrete product. Thus, if this rise in prices and margins " were believed to be permanent, the value of the plant would double " — an increase of only one-ninth in the selling price bringing about an increase of 100 per cent in the value of the business, " the plant," as Carver calls it. If on the other hand the price of shoes fall by twenty-five cents, the margin thus disappearing, the " plant " (the business, the concern, the enterprise ?) might become worthless — if, of course, the prospect were of this same sort. But it was obviously no necessary part of this aspect of the immediate problem to ask why the margins were widening or contracting, or how far the selling price could advance without the costs advancing, or whether the usual fact were one of wider margins of gain with rising prices or rather of narrowing margins through the relatively greater acceleration in the prices of the cost goods.

[1] Theory of Business Enterprise.

[2] Business Cycles, p. 104.

[3] Cf. in the Journal of Political Economy for September, 1904, p. 629, a note by the present writer on " Relations of Business Profits to Industrial Depressions."

Some part of the factual situation, however, Carver could safely assume, even if no theoretical explanation were offered or attempted. The margins of business gain do in general rise with the rise of prices of direct goods — ultimate or finished or consumption goods. Common observation will perhaps suffice as proof; the movement of stocks in times of this sort, good times, has no other intelligible basis. Dividend materials, divisible gains, increase when prices are on the upgrade, the intake in price, the credits, expanding more rapidly than the debits. Certain of the costs — perhaps all costs — the prices of indirect goods, lag behind the rising prices of direct goods. Otherwise there could be no widening margins of business gain, no larger room for later contractions of gains, no basis for any serious menace of recurrent collapse in the stock exchanges.

It is, therefore, only by tacitly assuming this relative lag of costs, either with all of them or with a part of them, that Carver's first and particular formulation can be taken as valid: "a slight fluctuation in the value of a product tends to produce a violent fluctuation in the value of the establishment producing it." This tacitly assumed lag of costs is, I think, not open to question. The law deduced is, therefore, equally immune from attack. Only what does the "establishment" connote or include? The stocks are rising in the markets as the dividends go up. The business, the enterprise, the corporation, as it earns more, comes to be worth more, the proprietorship a more valuable property in the aggregate, the security titles selling higher as separate holdings. But specifically, what is it within the corporation or the business complex or aggregate that is rising? Is it the machinery, or the raw materials, or the finished products in the warehouse, or the buildings, or the good will, or the side-

tracks or the organization? Perhaps it is each and all. The only direct pronouncement of the market is that the securities, the titles of proprietorship in the aggregate of all of these things, are rising. But why? Clearly because they represent more income. The earning power due to wider margins between costs and selling prices is more generous. So far, then, as the items in the "establishment" are taken to be worth more merely as representative of the higher costs of the various items making up the aggregate of the "establishment," there is nothing to be implied with relation to the volume of gains. Any higher selling price for the stocks could report solely that the concern might be liquidated on favorable terms, the organization abandoned, its good will for going purposes sacrificed, the business dismantled, the assets sold and dispersed.

We are compelled then for purposes of explaining the market valuation to reason from earning power to present worth. "The establishment" as an aggregate is not now worth more because the cost of reproducing its constituents would now be higher but because there is an earning power which for a time is not menaced by new businesses promptly organizing and equipping to share in the generous sale prices. The higher present worth upon the land, equipment, good will and what not, does not therefore represent new and higher costs in placing goods upon the market. Doubtless some of the items in the complex would cost more now to buy them than they originally cost — not that in their turn these new items need cost more to produce them, but because there is a relatively smaller volume of productive power equipped to meet the stress — an inelastic supply. But the aggregate worth of the establishment is not the aggregate of these equipment prices. So far, indeed, as any particular item in the establishment

can have a higher price attributed to it separately, on either a cost basis or a purchase price basis, this would quote a price too low for it. The disposition to purchase, the bidding prices of buyers for the replacement or extension of equipment, must be due to the prospective earnings dependent upon the equipment during the period of high selling prices and to the limited supplies of equipment, and cannot be explained solely by the cost of production attaching to the new equipment, or even to the purchase prices which must be paid to get it. Thus, to identify the high earning power of a business with the high prices of its various constituent parts is to blur all the lines of causation in the problem. It is indeed worse than this. To regard the rising margins of production reported in higher dividends and registered in higher capitalized present worths as themselves constituting a higher cost and as justifying the inference that other costs are rising — for example, raw materials — would be parallel to regarding your own gains from entrepreneur supervison as rising costs in your production, and to inferring therefrom that your other costs were rising also.

Carver's first law, or his general law in its first or restricted statement, may then be accepted so far as it declares that small fluctuations in the prices of products (more accurately in the margins) tend to produce violent fluctuations in the earning power of businesses and in the market prices of the titles of proprietorship.

We recall now that fluctuations in the prices of products are significant for either gain or loss only in the degree that the net margins between selling prices and the outlays for production are wider — only in the degree therefore that the costs lag behind the selling prices. Why, after all, do not all the costs rise to take up the slack? Why, for example, in times of rising

prices do they so lag behind the prices that the proprietorship titles may become so much more attractive to investors? Some equipment goods, certainly, during times of brisk demand for replacements or extensions, show actually no lag, but rather a pronounced acceleration. Here then comes in the significance of Carver's amplification of his law, "stated in still more general terms: The value of producers' goods tends to fluctuate more violently than the value of consumers' goods." (p. 498.)

Possibly so; but is this either a restatement of the previous formulation or a corollary from it? The stocks fluctuate more violently — e. g., rise by a higher percentage than the products — and, therefore, as the argument appears to run, raw materials will also fluctuate more. But why? And in which direction — parallel with the dividends or in the contrary direction? If dividends are to rise, raw materials in general ought to be low relatively to the selling prices of products, in view especially of the fact that the particularly scarce and expensive equipment goods are cutting seriously into the margins for dividends. But Carver does really mean that raw materials rise with prices and that dividends rise—as is commonly true—and means also that the raw materials rise faster than the rising prices. Possibly this last is also true, merely requiring explanation. It is, at any rate, in this sense that Mitchell reasserts it, and purports to offer statistical verification of it. But obviously this second formulation is something far removed from either a corollary or a restatement of the preceding law. It is by implication nearer to a direct denial of it.

But Carver goes farther, and Mitchell along with him, tho Mitchell does not thereby commit himself to regarding Carver's third formulation, more than the

second, as either a logical corollary or an amplified statement of what has preceded.

This third formulation asserts that "the further removed the producers' goods are from some consumable product and the more remotely their value is derived from that of some consumable product, the more violent the fluctuations in value tend to be." (p. 498.) But how can this be true? Whether, at any rate, as extension or as corollary of either or both of the earlier formulations, or as essentially the negation of either or both, Professor Mitchell accepts and supports it as statement of fact, allotting to it an apparent statistical verification, and interpreting it into a valuable contribution to the theory of business crises.

Such further quarrel, therefore, as I have it in mind to make, seems to lie chiefly with Professor Mitchell. "The evidence, so far as it extends, supports the contention that the relative demand for such supply of producers' goods is more sensitive to alterations of business conditions than . . . consumers' goods . . . a statistical foundation for the theory of business cycles which Carver has suggested." [1]

Such may, of course, be actually the case. I am inclined, however, to dispute it as fact, also, somewhat less confidently, to contest its theoretical significance for the purposes at hand. It goes without saying, however, that I do not deny the rising dividends or the rising stock prices that go along with the rising prices of direct goods, or the overcapitalization, or the intimate causal connection of this class of facts with financial upheaval and industrial depression. Nor do I at all contest—instead I am inclined to stress—certain other of Mitchell's statistical deductions. It is doubtless

[1] Mitchell, Business Cycles, p. 104.

true — earlier statisticians have asserted it and theorists in general have long accepted it — that wages lag behind prices on either the rise or the fall. This is, indeed, one of the accredited explanations for the widening margins of entrepreneur gains. With Mitchell, I believe also that retail prices lag behind wholesale prices on either market slope. One formulation of the present issue might therefore run as follows: is it true that wages and indirect goods move parallel with each other relative to the changing prices of direct goods, or is it rather true that the movements are antithetical? Why indeed should raw materials rise faster than finished products, while the wages lag? And what is the actual nature of the statistics that appear so to indicate? Are raw materials, more than laborers, like the inelastic equipment goods that get higher prices because of a relative, even tho temporary, scarcity?

It is not in my power to check up these statistics. Like most economists, I have believed either that the high costs make the products high or the high products make the costs high. Either view would by the test of these statistics appear to be untenable, but especially untenable the notion that deduces the prices of the factors, the costs, from the prices of the products — the backward-reflecting view. But in either case, why this general and cosmic partiality for raw materials against labor when prices are rising, this consistent unfairness to wage earners? True, wages do lag behind prices on either the rise or the fall, but this I had supposed to be merely one aspect of the fact that entrepreneurs consent to pay higher for their costs only as following on the assurance, and as motivated by the assurance, that they can sell at higher prices. This new notion, as deduced from the statistics, would imply that the em-

ployers take precisely this attitude toward the laborers, but partly offset it by bidding higher for the raw materials, even before the assurance of high selling prices arrives; that thus the one principle of motivation breaks into two applications in point of time, and therefore in point of outlay and of gain — less for labor and more for raw materials, relatively to the price results accruing to enterprise. But why? It is still clear enough in any ultimate sense that labor also is a raw material. And not only this, but it is that particular sort of raw material, that special factor, noticeably inelastic in point of supply — inelastic in total supply and relatively inelastic in particular supply. By many economists, indeed, is labor regarded not merely as a raw material, but as, in last analysis, the only raw material — all capital, machines or raw materials, representing merely past labor or past wages advanced to labor. That I am unable to see the thing after this fashion helps me not at all in the present perplexity. Nor does the productivity theory in any one of its different aspects or formulations serve better. Why these divergencies of materials from labor in the distributive process?

But taking these divergencies as actual, the perplexities merely multiply. Prices, we will say, are rising more rapidly than wages, but less rapidly than raw materials. But still the margins, the dividends, are widening. The lag in wages must then be making good the higher gains both for material men and for employers. But still the material men are especially prospering — deriving advantage not merely by relatively high charges to the producers of finished goods but also through hiring wage-lagging laborers. Each producer next along in the series toward the finished

good gets only a part of what the laborers lose. In part it is handed over to his respective material men. But if the raw material always rises rapidly relatively to its immediate product, and if the final product is based upon a succession of intermediate products, each having its respective raw materials, these geometrically increasing margins for the raw material men must make correspondingly increased inroads upon the dividends of the industries of the ultimate finished products. Thus these should be ideal times in which to restrict rather than to increase output, unless, indeed, the dividends are made good out of wages — with something to spare even for the margins in the last stage of the productive process. But evidence is lacking to show that any class of dividends is failing to participate in the general good fortune. It must then be true that the laborers at this final and ultimate stage of production are making good, in the form of shrinking real wages, the cumulatively rising margins of the raw material and final products men. The laborer "pays it all." And still these are good times for all employers —times of brisk employment, lively competition—and yet with real wages especially suffering in the final industries; the while that all employers are in fierce competition to increase their labor forces, are permitting, indeed, the stress for product to push them into the inefficiencies of over-time or into the employment of inferior grades of labor. Why, under these conditions, do not the exploited laborers drift over to the fields of industry in which their contribution to entrepreneur margins is less generous? So far as I know —or as Mitchell in any way indicates—there is no evidence that the employees in the final industries suffer the more in real wages; nor is this *a priori* probable or even credible.

But if we have found it hard to understand how the margins of enterprise in general are rising in good times, we shall find it still harder to see how they are narrowing in bad times — why the good times are good and the bad are bad. We know that when, on the upgrade of prices, wages are beginning to catch up, the dividends get smaller. But this must assume that the materials are not making a relative and offsetting fall. And yet if they are not, a bad period for business must be beginning — or have already begun — and the wage level, therefore, be turning already toward fall, in the accelerated foreshadowing of the prospective fall in prices. And if this takes place as the result of prospectively narrowing margins, there should be no narrowing margins. The assumed catch-up in prices must somehow change precipitately back into a lag. For actually — as we are told — the raw materials precede in fall the fall in the prices of the finished products, and fall faster and fall farther. "The prices of raw materials respond more promptly and in larger measure to changes in business conditions than do the prices of their products."[1] If there is any explanation it must be that wages are still rising after product prices are falling and long after raw material prices have been falling; which we know — being so assured — cannot be.

Let us follow this process along down the full curve of the decline. The raw materials, antedating in decline the decline in the prices of their products, fall faster and also to lower levels. "Producers' goods" (raw materials) reached their highest point earlier in 1907 than consumers' goods. . . . Their decline in 1908 greater in degree, their recovery sooner and . . . at a faster rate." (p. 99.) "The relative demand for and supply

[1] Business Cycles, p. 102.

of producers' goods is more sensitive to alterations of business conditions than the relative demand for and supply of consumers' goods." (p. 104.)

Why, then, the bad times? The spread between product prices and producers' goods is greater the more marked is the fall in the price of products and the longer it continues, and, as Carver asserts and Mitchell confirms, the farther removed from the final direct good is the producers' good. Especially, then, should the industries of fundamental raw materials, the extractive industries, be prospering. For them it should be a good time for dividends and for stock prices and for increase of output, rather than a time for depression or reaction or panic. But the fact appears to be that not even these primary industries are prospering; there is no evidence of any general line of differentiation between industries in this regard. The general lag in the wage fall must then explain the entire case. But unless the wages lag the more in the fundamental industries — thus manifesting another puzzling tip-up in the wage level — the final industries, the finished goods industries, must be in a parlous case. They are getting relatively less relief on the side of raw materials, and no less harm from the inelastic wages than the other industries lower down the scale toward the primary, and yet somehow can't quit offering a market to the less unprosperous underlying industries — are being mulcted by wage earners and, relatively speaking, by raw material men — and all this to the especial gain of wages on the extractive level. But these chiefly suffering industries still go on; and their laborers stay with them, oblivious of the better wages offering elsewhere; and the supplies of raw material and finished goods so far maintain themselves, and so far prevent a rise in general prices, that real wages are relatively high. So once again emerges

the puzzling divergence between the two classes of raw materials. As on the upgrade of prices in the good years the wage factor, through the wage lag, was the only explanation of this goodness — was the sole source at whose expense gain could accrue to the industries of final products — and was a further sufferer as solely furnishing an offset to the rapid rise of producers' goods relative to the price of their products, so now, in times of falling prices, these bad years are prevented from becoming good years only by the exactions — quite unequally distributed relatively to the ability to bear them — that are imposed by wage earners. The raw material men are now taking advantage of the final products men so that these latter lose. And yet the raw material men fall in turn into equally great losses through the increasing exactions of wages. Wages are inelastic against fall, but unequally inelastic in the different levels of industry, with the result that inequalities in deficits are further exaggerated.

Under closer inspection this line of possible explanation does not turn out to be attractive. Shall we try another: the shrinking volume of turnover in dull times? But still, why should the ill effects be so unevenly distributed between labor and raw materials, and so unevenly between different raw materials accordingly as they are more remote from final products, and so unevenly again between wages in the different levels of industry, to the degree that differences in relative wages are the only explanation for the general dull business. And why should there not be either statistics or observation to support this view? In point of fact however — in point at least of general opinion and observation, as well as of inference from Professor Mitchell's investigations — these differences of turnover

between good and bad times are not great. "The volume of domestic trade is subject to so large a factor of growth that it contracts but a trifle when business is dull . . . expanding faster than usual when business is good." (p. 244.) I take the actual volume of concrete product, rather than product in terms of price, to be here in question. If however, account is made of falling prices, the deficit in product must be still the narrower, bad times having little social significance, and retaining importance merely in the psychology and temper of business men in price computations under price competitions.

Still other lines of exit must be tried. How indeed shall one assume to deny the facts or the statistics because they make trouble for his theories. Better obviously to revise the theories.

And so say I, only with some choice of the theories to be revised. In fact, also, I do not go so far as to deny the statistics. They seem still credible, and to be questioned only as regards their adequacy for purposes of theoretical deductions, and still more as regards their interpretation. First, however, it will be well to make certain of the issue. I make no question that retail prices fluctuate less than wholesale prices, lag relatively, rise later and less, fall later and less. In the lack of any precise information as to manufacturer's prices, it may be taken as probable that the wholesale prices move later and fluctuate less than manufacturer's prices. It seems quite clear that in times of rising prices for direct goods some producer's goods — the equipment goods of inelastic or slightly elastic supply — must rise more sharply and to higher levels than the direct goods in the production of which these equipment goods are factors. What I deny is that *producer's*

goods in general or raw materials in general can in the average rise faster in price than the manufacturer's prices for the products — formulations, for example, like the following: "Consumer's goods even at wholesale are more stable than producer's goods." (p. 98.) "The prices of raw materials respond more promptly and in larger measure . . . than do the prices of their products." (p. 102.) "Relative demand for and supply of producers' goods is more sensitive to alterations of business conditions than the relative demand for and supply of producers' goods." (p. 104.)

But there are various sorts of raw materials; do they fall safely within one generalization? And producers' goods comprise both raw materials and equipment goods; is it safe to generalize these into one inclusive formulation? And, so far as either is concerned, is it safe to infer the greater fluctuation for the more remote?

First, as to remoteness: It is generally held that the factor that is relatively scarce gets the larger distributive advantage. But remoteness and scarcity need not in the slightest coincide. In this respect, in truth, Carver has been more cautious in his statement than Mitchell in his underwriting. One aspect of what I conceive to be the better doctrine, Carver brings out clearly as a limitation upon his generalization that the most remote goods fluctuate most. In this connection he makes the question one rather of the degree of specialization and of use — allowing, however, nothing to the question of the relative rapidity of the adjustment of supplies of equipment to changing demands. He says: "This would be the tendency [toward larger fluctuation] until that stage was reached when the producer's agents were no longer especially connected with one particular line of production and were not therefore affected in value merely by changes in price of the one

kind of consumable product." [1] But this is to show how, on occasion, remoteness may not explain the relative fluctuation, not to show how it commonly does. Why think that "the farther removed . . . and the more remotely the value is derived . . . the more violent the fluctuation?" Relative scarcity is enough whether by the restriction of the sources of supply, or through the necessary period of adjustment due to the length of the productive period, or through delay attached to the installation period, or by the larger risk costs attaching to new installations — the constant menace of a slump in prices. For it is true, as Professor J. Maurice Clark has admirably shown, that equipment goods are especially unstable in price.[2]

To test out this question of remoteness, let it be assumed that there takes place in America a great and sudden increase in the demand for pictures of the Kaiser, to be painted on materials or requiring pigments closely limited in supply or controlled under one ownership. The rise in painters' earnings need not be appreciable — enough merely to divert them from the acceptance of other orders. The possibly enormous rise in the prices of finished paintings might well be practically absorbed by the rare materials, the fabrics or the pigments. That this is in no degree a question of remoteness, but only of the relative scarcity of the available factors — an example of the "unique good," strategically favored in the distributive process — may be illustrated by assuming the rarity to attach solely to some one artist of special repute for skill of touch, or, say, to some one brush of an exclusive and magical virtue. The gains would then be absorbed by painter or brush owner to the practical exclusion of canvas or pigments.

[1] Op. cit., p. 498.

[2] See Journal of Political Economy, vol. xxv, No. 111 (March, 1917), "Business Acceleration and the Laws of Demand."

So far, however, as the analysis has yet proceeded, it is only the remoteness doctrine that comes under discredit. The formulation may still hold for raw materials or for producers' goods in general, tho the reasons therefor remain inscrutable. In fact, as we have seen, it does hold for some of the producers' goods; particular equipment goods may especially rise during the time of their relative scarcity and fall in the time of their relative plenty. Doubtless also the formulation holds in varying degrees for certain other goods of the raw material class. Inevitably, I should think, in any period of rising prices, some raw materials must be running relatively rare compared to others, must therefore rise in price relatively to the finished product, and must rise especially with relation to the other raw materials that are lagging relatively to the finished product, or are even falling in price. All this does not need imply that I discredit Mitchell's statistics in themselves; only in the interpretations attached. Statistics will doubtless always be available of the sort to present the perplexities under consideration and to invite the generalizations deduced, precisely as statistics of the opposite emphasis are also always to be had. Raw materials vary in their elasticity of supply and in the promptitude of response to new demands; but these variations do not run parallel with their variations in point of remoteness. In fact, a raw material that is remote in respect to some finished products will be proximate with respect to others.

Either by direct analysis or by implication it sufficiently appears that to generalize raw materials by the test of remoteness so that relatively to the rising prices of products all shall rise, varying only in their degree of rise, is impossible. So again, there is as yet nothing to indicate that any general and uniform rise of "raw

materials " takes place. If it is actual, we still have the explanation to seek.

I believe, however, that it is the far easier task to explain how the generalization has succeeded in recommending itself. Carver, we recall, found it practicable to go from titles of proprietorship to producers' goods in general. Mitchell has found his way from producers' goods in general to raw materials. For Mitchell's view the ambiguous connotation of *producers' goods* may readily furnish the explanation. By comparing " fifty-five commodities bought almost wholly for family use [bread, meat, cloth, wringing machines, brooms, hard coal, gasoline, stew pans] and seventy-three commodities [lubricating oils, wheat, cattle, hogs, equipment goods, ores, soft coal] bought almost wholly for business use," (p. 98), he finds the range of price variations relatively great and the movement relatively early for producers' goods as against consumers' goods.

The data should indeed be entirely adequate for the inference, if only among the seventy-three producers' goods there were any appreciable number of equipment goods. A small number of these, indeed, would spread the mantle of rise over a much larger number of raw material goods — goods that in the average might easily be neutral under the test, some of them inevitably rising, others inevitably falling relatively to their products. The generalization is therefore worthless for any purpose of distributive theory, no matter what may be its significance for Mitchell's especial problem. It groups things under one tendency that are separate in the influences bearing on them. And obviously it affords no basis for the generalization that *raw materials* rise in price earlier and faster or higher than finished products — that, as Mitchell puts it, " the manufactured goods used by producers show wider oscillations [than manu-

factured goods used by consumers] . . . the raw producers' goods . . . still wider . . . affording a statistical foundation for the theory of business crises which Carver has suggested." (p. 104.) There remains only the mathematical certainty that if equipment goods are greatly rising relatively to the prices of the products, the raw materials or the labor — or some raw materials and some laborers — will disclose an appreciable lag in relative remunerations.

But Mitchell elsewhere throws some light — and by implication some doubt — on the generalization that he assumes to underwrite. It is indeed true that " the supply of vegetable and animal foods varies in an arbitrary fashion determined by the weather, and the demand for staple foods is less affected by prosperity and depression than that for more dispensable commodities." (p. 95.) So again: "Mineral and forest products are turned out . . . under conditions which prevent a quick adjustment . . . animal products, on the other hand, require a year or two for growth, while the supply of vegetable products depends quite as much on the weather as on efforts to adapt their production to market conditions." (p. 104.) I do not understand him to question that mineral and animal products are in equal degree raw materials for the purposes of the subject in hand. He notes also that " farm products show more frequent and more striking movements of a contrary sort [to the course of general prices]. In 1901 farm products rose while mineral products fell. Farm products did not rise. . . . In 1895 mineral prices did. In 1904 farm products rose in face of business depression . . . mineral products fell; finally, farm products declined but two points . . . mineral prices twenty, in the depression of 1908. . . . A dissonance hardly less striking appears between . . . forest and animal products. . . .

The inorganic mineral products reflect the business cycle with least distortion . . . the organic forest products ranking next . . . ' as a trade barometer.' " (p. 108.) The explanation is clear — and is most important for present purposes. Coal, iron, and timber, second as indicia of trade conditions in their price movements, point merely to products of relatively elastic conditions of supply, relatively prompt in expansion or contraction, moving readily with prices, and preventing, if monopoly is absent, any extreme conditions of scarcity or of surplus.

But still something must be made of Mitchell's generalization that " in each of the four groups [of raw materials — mineral, farm, forest, and animal; all of the raw products there are] the crisis of 1907, the depression of 1908 and the revival of 1909 affected the prices of raw materials earlier and more seriously than . . . the prices of manufactured goods." (p. 109.) For even if we can find no explanation of it, it still may be true — probably is true, if Mitchell so finds it — even tho each particular analysis of contributing causation may seem to discredit it. We must explain either the facts or Mitchell.

There is, at any rate, one possible explanation for the diverging tendencies asserted to manifest themselves between raw materials and labor. One can practicably be contracted for — futures in it purchased — the other cannot. Speculation is possible with raw materials by warehousing, or by contracts for future delivery. No one, however, would care to go far in either method with labor. Not only this, but speculation does not easily or largely busy itself with products ready for consumption.[1]

[1] " Out of the thousands of commodities bought and sold, the most extensive tables quote less than three hundred. Goods which change substantially in quality from year to year must be rejected, and for goods which are usually the subject of private bargains it is difficult to secure quotations. For the most part, only those commodities are in-

Wheat rather than flour, wool than cloth, cotton than sheetings, corn than meat, attract speculative activities. To the extent, then, that speculation may serve as our explanation, it may be credible that labor may lag in prices relatively to raw materials. But is it also credible that finished products should lag relatively to the raw materials? There is, it is certain, relatively little speculation in finished products. They deteriorate too rapidly in style or otherwise, vary too greatly in quality within the same classification, are too much affected by fancy and personal preference and advertising, are too greatly subject to brand and trademark, to allow readily of speculative handling. In the large, clearly, it is with raw materials that speculation is busy. Labor also has small place on the boards of trade. If there is a retardation of wages relatively to the prices of products, there may, it seems, be room for the relative acceleration in the prices of raw materials.

But if the raw materials are to be credited with the lag in wages, they must be debited with the acceleration in equipment goods. And in any case, the statistical interpretations are not the easier of acceptance, even were there statistics for finished products to make the case a cogent one, and even if, where any price were recorded, it were a manufacturer's sale or contract price rather than merely a wholesaler's price. Whatever, then, may be the truth in the case, the statistical evidence must be mostly wanting to prove it.

The truth appears to be that finished goods, being difficult of sale in the speculative markets, are coming more and more to be produced for future delivery on contract orders of not rarely months or even years ahead,

cluded which are dealt in on public exchanges and those for which dealers post their buying or selling prices. . . . The data concerning manufactured goods are relatively scanty. . . . A considerable part of the business transacted at any given time is done on the basis of prices fixed by earlier contracts, and these prices often differ notably from the current quotations." Mitchell, p. 93.

and that the raw materials are also contracted for long in advance. If, then, prices are rising, it is easily credible that present materials should be bought at present prices as provision against the contractual liabilities for future deliveries that are already being assumed. So, again, it may be more convenient, or even necessary, to make this provision by buying contracts for future delivery rather than by purchasing raw materials for present delivery and storage. In the milling of wheat, for example, the flour may be sold for future delivery, and grain futures purchased to offset. But the very purpose of this hedging, the reduction of the milling business to the mere mechanical process of grinding grain, would fail of accomplishment if the raw materials were on the average higher in the futures market than would correspond with the contract price for the flour. In this sense, the raw material can hardly rise earlier than the finished product, altho it may be true that the raw material price is paid today, the while that the obligation of payment for the flour, which is assumed today, is not to be executed in the form of actual payment till several weeks or months later — and is not quoted at either time. The proper comparison is that of the price of the grain that enters into the flour with the price at which the miller sells the flour. No progressive divergence is credible here — and especially no relatively early rise in the raw material price. But it may still be true that, if the retardation in wages is appreciable, the spread between grain prices and flour prices may be less than if wages corresponded more nearly to selling prices. In this sense and to this degree the rise in grain might be greater than the rise in flour but could hardly be earlier. This greater rise must, it seems, be actual, if it be assumed that the miller is getting no gain for himself out of the general upward movement in prices, excepting

possibly through grinding more grain. A suggestion looking in this direction is indeed offered by Mitchell: "The more manufacturing costs have been bestowed upon materials, the steadier do their prices become." (p. 102.) But that the explanation is not safely to be found in the retarded advance in wages is indicated by the fact that for three years after the early days of 1903 the lag in wages did not take place, altho prices were still advancing, and operating margins, as indicated by stock exchange movements, were growing more generous—[1] no gain from wages, a deficit on raw materials, a deficit from equipment goods — but earnings expanding. If, therewith, any theorist, mathematical or economic, should be tempted to demur, he should still hold steadfastly in mind his obligations of reverent humility in presence of the facts.

And still it is not the variable amount of grain to be ground, but the variable charge for grinding it, that allows the miller the expanding margins that he probably gets. And in any case, the labor costs in milling are relatively so small a matter that the wage lag could hardly account for appreciable gains both to the miller and to the raw material men. To the extent, however, that the relatively stable wages enter into the case, it may be true — must, indeed, be true if the rising equipment costs do not afford an offset — that the manufacturers' prices on finished products fluctuate less than the raw materials.

Of one type of industrial process the milling industry affords an exceptionally clear case for the purposes of the present analysis. Its raw materials come direct from the extractive industries; the product is a typical finished product, a direct good, an ultimate consumption good.

[1] Business Cycles, p. 135.

Possibly, however, the miller is not milling on orders but is selling in the market for immediate deliveries, or is producing for stock; in either case is not speculating. If flour is rising in price, but the wheat rising earlier than the flour and faster at the same time, the miller's case must obviously be a parlous one, with nothing but the lag of wages to shield him from disaster. Present flour, *at the manufacturer's price*, equally with present wheat should be rising — especially if future flour appears certain to go up, and if those millers grinding for future delivery are already getting these higher prices. On any other terms this miller must sell his flour ahead or grind for stock, rather than to market on terms of the low prices for current delivery — prices appropriate neither to the current quotations for raw materials nor to the probable future price of either wheat or flour.

It seems probable, however, that making for stock is in the main confined to periods when the market appears to be temporarily bare of buyers for either immediate or future deliveries. Speculation, we recall, is unimportant with flour. Presumably, therefore, grinding for stock is characteristically a sag-time phenomenon.[1] In fact, however, this should be the especially unwise time for this policy, if it be true that raw materials are running relatively low in price in comparison with the selling prices of products. At such a time, if the inelastic wage costs leave it worth while to run at all, the gain of grinding for present delivery is clear and certain. The gains must be only the narrower by holding till prices drop still further. Millers speculatively inclined should rather hold their products on the rising market and market promptly on the falling. Nor is it to the point for

[1] Mitchell, at all events, takes this view: "In dull times the operators may prefer to accumulate stocks rather than to reduce their output; but, in general, the rate of production is adjusted to the volume of orders." (p. 230.) As I understand this passage, it is intended to apply to the general range of industry, tho it occurs in a discussion of the particular industry of coal mining.

the present purpose that wages may be relatively high. By assumption they are to continue so; grinding for stock will make this difficulty none the smaller. Of course, if the miller can find no buyers, or buyers only on terms of loss, his sole choice lies between suspending and making for stock. But those times when one can hardly sell his products at all are not the times when the selling price can be expected to be high relatively to the raw materials, the raw materials a bargain relatively to the finished product. But assuming this wider spread, the best thing to do when the wages grow discouragingly high, and still the mill must run, and the raw materials offer so attractively good bargains, is to run at full speed for the cash market.

Nor is this all of the trouble. Just as in times of falling prices wages fall late and least, and as in times of rising prices rise late and least, so, as the statistics appear to indicate, " partly manufactured goods pursue a course intermediate . . . the more manufacturing costs [labor and equipment] have been bestowed on raw materials, the steadier do the prices become." (p. 102.) This could most readily be explained by the well established inelasticity of wages, the lag in rise or fall; the more, then, that wage costs enter, the more stable the costs relatively to the sale prices. But the hazardous quality of all these generalizations as to producers' goods as a class, or as to raw materials as a class, or as to partly manufactured producers' goods as a class, may be illustrated by the statistical evidence charted by Mitchell. (p. 100.) For the three years beginning with January, 1905, partially manufactured materials were relatively low compared with finished products. For the first one of the three years the finished products were rising the more rapidly; were holding stationary for the second year, while the semi-raw materials were diminish-

ing their lag; were falling the third year in comparison with semi-raw materials, but were still remaining disproportionately high — the lag of raw materials giving place to a relative acceleration in price only during the rise of all classes of goods during the year 1908.

Our excursions into the field of statistical or theoretical conjecture have thus far not greatly prospered. But there is, I am confident, something to be accomplished in the interpretation of such statistics as Professor Mitchell has found available. It is quite possible that, should ever the available materials become as bountiful as they now are scanty, there might be forthcoming a complete verification of what the actually available data tentatively suggest. For we are to recall that Mitchell's comparison of the prices of indirect with the prices of direct goods reports only the prices of equipment and raw materials and labor relatively to the wholesale prices quoted in the markets, never, or at all events extremely rarely, with the manufacturers' selling prices, either on order or for the current market. The manufacturers' prices are not to be had. Nor are the purchase prices of the manufacturers' equipment readily to be known or, when knowable, commonly reported. The comparisons that are possible are those of certain of the costs with such wholesale prices as are recorded. "The data concerning manufactured goods are relatively scanty; . . . for goods . . . the subjects of private bargains it is difficult to secure quotations; . . . a considerable part of the business . . . is on the basis of prices fixed by earlier contracts, and *these contract prices often differ notably from the current quotations.*" [1] It is in this last clause that I believe the explanation is to be found for whatever incredible inferences the

[1] Business Cycles, p. 93; italics mine.

statistics may have appeared to suggest. All the comparisons of the prices of the cost goods to those of the finished goods have run not in terms of what the manufacturer pays relatively to what he receives, but relatively only to what the wholesalers charge. These wholesalers' prices often vary widely from the manufacturers' prices. The contract prices for future delivery may also diverge widely from the actual cash prices at the time of delivery, as also from the prices at which new contracts for deferred delivery are being made. So again, the wholesalers' selling prices on current goods for immediate delivery may differ noticeably from the contract prices under which the wholesaler must later reinforce his stocks. Mitchell reports this to be the fact; and, if it is the fact, as I also hold it to be, the solution of our difficulties is in sight. "Retail prices" we are told "lag behind wholesale prices both on the rise and the fall." (p. 98.) This is probable even were there no statistics in support of it. More commonly than otherwise middlemen base their selling prices on the prices at which they buy. Perhaps this holds of wholesalers less uniformly than of retailers. But with wholesalers it is especially easy to base the selling price of today on the prices at which the goods were bought, this buying price being in turn fixed according to contracts of an earlier execution. Any deviation from this method — and deviations are not improbable — may take place through devices which the current quotations of the wholesale market will ordinarily not disclose. In fact the price lists of wholesalers are not consistent measures and guides as to actual selling prices. The selling force has to receive instructions, but must still retain a wide working margin of discretion. The list prices that are in their hands are indicative of the prices which it is hoped can be ob-

tained — are indeed something like the upper limit of what shall be charged. Under close competition these prices get shaded. If the market discloses upward tendencies, quotations are stiff — the prices "hard." If new supplies promise to be less expensive, the quotations are "soft." But in general the list prices may probably be said to report "cost-plus" prices. Interpreted, therefore, as indicating that the spread between raw material prices and manufacturers' selling prices is narrowing in good times rather than widening — as inferring, that is to say, a distributive doctrine — Mitchell's statistics are easy of misinterpretation. Wholesalers' prices at any given time are probably more likely to reflect with approximate accuracy the delivery prices of that time under contracts made earlier. If so, then the delivery prices of today are the contract prices of a month earlier — not the contract prices of today. In a changing market the wholesalers' prices of any given time probably depart widely from the prices at which, under present contracts, goods will be delivered months later. The current wholesalers' prices correspond more nearly with the prices on current deliveries under contracts made earlier. So far, therefore, they lag behind raw material prices in the current market. The present raw material prices correspond to the prices of goods to be delivered months ahead. Stated in another theoretical emphasis, it is the selling prices of months ahead that are being reflected back on the raw materials of the present market. The present delivery prices should be paired with the raw material prices of say six months ago. The lag of finished products relatively to raw materials is wrongly interpreted when it is taken to assert that the margins between costs and selling prices are narrowing in good times and widening in bad times. Or, if it be true, the statistics fail to prove it or even to indicate it.

But is this an entire solution of the question? It would seem to indicate only that no statistics for "producers' goods" without distinction of sorts, can be to the purpose of an analysis of the relation between the prices of finished products and the prices of the cost items entering into the products; that there is no warrant in the statistics for the inference that the prices of finished products lag behind the prices of raw materials in general; that the generalization is safe only with reference to equipment goods or "unique goods"; that the parallel between the prices of proprietorship titles and raw materials is entirely misleading; and that the further extension of this generalization to the point of asserting in the large that the more remote the raw materials from the finished product the greater tends to be the divergence in prices, is at the same time unprovable and improbable. Statistical verification or refutation of some of these positions is a task of extraordinary difficulty or even of impossibility. The purposes of Professor Mitchell's investigation involved no responsibilities of this sort — his task was already burdensome enough without the gratuitous assumption of further responsibilities. His interest was neither in the distributive problem at large nor in any particular refinement of it. I have intended merely to present the grounds of my conviction that out of his laborious and brilliant statistical investigations Professor Mitchell has deduced certain distributive doctrines which are not merely unverified by the available data, but are also beyond the possibility of test by statistical methods, at the same time that they are theoretically incredible.

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REVIEWS

WAR TIME CONTROL OF INDUSTRY[1]

THIS book illustrates what a well trained scholar may accomplish in a short time, working under pressure. Dr. Gray has put into a few pages the leading facts about the British government's control of economic life for war purposes. It is obviously and confessedly only a sketch, yet of great value to all, and not least to the administration in Washington, where it is in great demand.

The history of the policy of the British government is divided into three periods. The earliest is the first ten months of the war, when the Liberals were in power. The second covers the eighteen months of coalition government. And the third is the period of the war cabinet, in control during the last year covered by this book, December, 1916 to December, 1917. As the government passed from one stage to another, it grew in courage and in the tightness of its control over trade and industry.

The plan is to deal with such special topics as railways, munitions, coal mining, shipping, food, and agriculture. In the treatment of each the arrangement is chronological.

Some of the major generalizations may be best expressed in the author's own words: "In its administration of the railways the Government has been perhaps more fortunate than in any other of its essays in state control. . . . The record is undramatic and enviable, especially when compared with the crisis and discontent which marked the advent of government control in other industries."

[1] War Time Control of Industry: The Experience of England. By Howard L. Gray. The Macmillan Co., 1918. 304 pp. Price, $1.75.

The " triumphant results of the Ministry of Munition's first year " were due to the discovery of this fact: " munitions cannot be obtained merely by ordering. You have got to see (in the words of Mr. Montague) that the man who takes your orders has the plant and the labour; you have got to follow up the work process by process; you have got to provide from the beginning to the end everything that is necessary. That is the cardinal principle of the Munitions Department."

It was " the Government's endeavour to regulate distribution as between home consumers that gave rise to one of the most remarkable of war-time devices. This is embodied in what are known as Priority Regulations. The extension of them to many industries and the obstructive part which they can so readily play give them a first-rate importance."

If there is a hero in this story, it is Lloyd George who met one problem after another, solving each in its turn. In the management of agriculture, however, it is " the vigorous hand of Mr. Prothero " that is in evidence, with his energy, moderation and firmness. How England took a census of her agricultural resources, advanced capital, legalized the seizure of such land as was not fully utilized, provided fertilizers and labor, fixed a minimum wage for the agricultural worker, and set a price for grain for six years, is an eloquent tribute to the organizing power of the British government.

The reader has a feeling that the results of the various measures are inadequately set forth. Especially would he like to know more about the less dramatic failures which ended neither in strikes nor disaster in battle. The inability of the government to make adequate use of German prisoners in agriculture and its inability to manufacture tractors for agricultural purposes are examples of the minor failures that are given. The sending of skilled labor into the army, labor which had later to be returned, is a conspicuous major failure.

In the final chapter the author compares the American with the British situation. He points out that while the United States has been on the whole more prompt in its action, the British government has been more thoro-going.

It is questionable, however, whether this would apply to the railroads and the merchant marine; in the case of the former the United States was slower to act than Britain; and in the case of the latter more thoro-going. This last chapter, indeed, is the least satisfactory in the book, showing signs of hasty generalization.

The extent to which English experience has been of use in America is indicated in the concluding paragraph of the book. "By the prompt taking over of her railways, the tardy taking over of her mines, the efficient control over her munition shops, and the statutory coöperation of labor, England has brought great essential industries to a stage of efficiency which America may well be proud to attain. It was at first hoped that voluntary coöperation in the United States might achieve what in England has required state control. This hope is no longer entertained with regard to merchant shipping or the railways. It is fading in the case of the coal mines. Its brightness has been dimmed by the introduction of various restrictions upon trading in foodstuffs and in wool. It persists still relative only to the production of munitions, the conciliation of labour, and the consumption of food. Always, however, as the hope wanes, the experiences recorded in the preceding chapters are turned to, and the wisdom taught by them is carefully pondered."

As to the post-bellum results of war time control the author makes these significant remarks. "Assurance is given that all measures are temporary and that with peace the conditions of peace will be restored. What will have been created, however, is precedent and experience; and in the industrial world which emerges from the war these may have more importance than is at the moment anticipated."

One of the shortcomings of the book is the lack of first-hand information, such as comes from observation and close contact. Circumstances have made possible the use of only the most obvious of journals and government reports. Partly owing to this fact, however, the book is objective in its treatment. Tho a war time production, it is devoid of high color.

This its strength and its merit. Altho the work will probably be superseded in parts by more exhaustive studies, it will remain of great value as an outline, especially if brought up to date at the end of the war.

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HISTORY OF LABOR IN THE UNITED STATES[1]

IT is impossible in a review notice to do justice to the excellence of this two volume study of the history of the labor movement in the United States. It is indeed a fitting conclusion to twelve years of research and compilation on the part of Professor Commons and his collaborators.

These volumes, as well as that most valuable collection of sources, *Documentary History of American Industrial Society*, were made possible through the life-long sympathetic interest of Professor R. T. Ely in the history and problems of organized labor. In 1886, he stated in the preface of his *Labor Movement in America*, "I offer this book merely as a sketch which will, I trust, some day be followed by a book worthy of the title *History of Labor in the New World*. He never forgot that ideal, and about twenty years later was able to interest various persons who aided financially to such an extent that a staff of assistants, working under Professor Commons, was employed to comb the country for labor data and to write the finished story of the endeavors of the American workers to better their condition. A seminar in "Labor" was also organized at Wisconsin under Professor Commons, and graduate students made detailed studies of special phases of the labor movement, some of which have been published. Many of them have been freely

[1] History of Labour in the United States. By John R. Commons, David J. Saposs, Helen L. Sumner, E. B. Mittelman, H. E. Hoagland, John B. Andrews, Selig Perlman, with an introductory note by Henry W. Farnam. New York, The Macmillan Co., 1918. Vol. i, pp. xxv, 623; vol. ii, pp. xx, 620.

drawn upon by the collaborators, possibly a little too freely without adequate credit being given to their authors.

Only those who have been in touch with the venture know the magnitude of the task. The scope of the field to be covered, the vast variety of problems to be studied and interpreted, the untangling of the threads of evidence and their proper piecing together, and, last but most important, the difficulty of collecting the data upon which the story was to be based, were but a few of the obstacles to be overcome. Throughout all the years of research and writing, the work has gone on under the immediate supervision of Professor Commons. With his usual modesty and desire for "fair play," he has, however, taken credit to himself for only the short introductory chapter. It is really to be regretted that only those of us who have watched the work from its inception realize how fully these volumes owe their existence, their very contents, almost their every statement to his guiding genius. He gives his assistants, however, full and complete credit for those parts of which they had the writing. A statement to the above effect would not have been out of place in the introductory note by Professor Farnam. While great praise is due Professor Commons and his collaborators for the most successful and admirable completion of their task, credit is also due to Professor Ely, whose vision, sympathetic interest and initiative, made possible this consummation of his early ideal.

The first volume opens with a short chapter by Professor Commons in which it is made clear that the study concerns itself, not with the forms, structure, and policies of organized labor, but with the background of the labor movement, its philosophies, its activities, the conditions — social, political, economic — out of which it came. The interpretation proposed is a combination of interpretations, omitting only the more recent "behaviouristic" and "instinct" approach, which finds no place in the story that follows. Professor Commons sketches only in the barest outline the influence of free land, political institutions, the spreading network of transportation, the courts, immigration, price fluctuations,

etc., upon the developing activities of the workers, leaving to his associates the telling of the detailed narrative which substantiates fully his introductory statements. All available data are used by them in the interpretation of the origin, success, and failure of the labor movement of each period, different periods requiring " different kinds of treatment and different degrees of detail."

The narrative proper opens rather slowly with a section of 140 pages on " Colonial and Federal Beginnings to 1827 " by David J. Saposs. Much piecing together of the scanty threads of data is necessary for this early period, but Mr. Saposs accomplishes his purpose in a thoroly satisfactory manner. He places the " first authentic organization of a single trade " and the first strike at 1786 in Philadelphia, and the beginning of the American labor movement at 1827, again in Philadelphia. This chronology runs counter to certain allegations made by others, but sufficient material is supplied to substantiate his statements.

Part II, " Citizenship (1827–1833)," comprising 163 pages, by Dr. Helen L. Sumner, moves a little more rapidly. The data were more available; the story runs more clearly along working class lines, and revolves almost solely around the efforts of the workers to profit by political activity, altho this period furnishes some *bona fide* trade union activities, not to overlook the formation of the first central labor council in the world in Philadelphia in 1827. The establishment of public schools, the enactment of mechanics' lien laws, the abolition of imprisonment for debt and of compulsory military service, the revision of the currency — all were secured as the results of the assertion of " the rights of persons against the rights of property."

Part III, " Trade Unionism (1833–1839)," 149 pages, by Edward B. Mittelman, discloses the swing towards trade unionism, the growth of city central councils, the formation and activities of the National Trades' Union, and the abortive efforts to establish national trade unions in various fields, concluding with the story of the disintegration of the union movement following the panic of 1837.

Part IV, "Humanitarianism (1840–1860)," 136 pages, by Henry E. Hoagland, discusses the effects of the increased immigration of the forties, the continued and more widespread efforts of the workers towards the solution of their problems through coöperative colonies and other coöperative activities, the homestead movement, the proceedings of the various Industrial Congresses, and finally the development of the "New Trade Unionism."

Volume II is given over completely to the period following 1860. Dr. John B. Andrews devotes 191 pages (Part V) to bringing the story down to 1877. He admirably covers the Civil War conditions and their effects upon the labor movement, the development of national trade unions, the history of the National Labor Union (1866–72), and the subsequent disintegration following the panic of 1873.

Part VI, "Upheaval and Reorganization (since 1876)," by Selig Perlman, treats of the more recent activities of the workers, discussing the secret and revolutionary beginnings of the seventies, the efforts towards national federation, the Greenback Labor Party, the growth of socialistic, anarchistic, and syndicalistic influences, the rise and fall of the Knights of Labor, the Great Upheaval (1884–86), and the formation and subsequent history of the American Federation of Labor. A most excellent bibliographical note concludes the volume.

The work of Professor Commons and his collaborators has been admirably done. It is definitive, and I doubt if much will ever be added to their narrative dealing with the history of labor in the United States down to 1896. Too high praise cannot be given this collective piece of research and authorship. It has done for the United States what the *History of Trade Unionism* by the Webbs did for England, altho, for various evident reasons, it gives a much more complete and detailed, tho a somewhat more complicated, story than does the latter work.

I hesitate to offer any criticism of this most admirable study for fear that what I write may be taken as mere caviling.

There are certain matters, however, that should be mentioned, in all deference to the excellence of the authors' work.

This study has the defects of any coöperative work, altho to a less extent than is usual. Altho the facts are ably presented and all possible data are included, and altho the same method of interpretation is followed throughout, the story does not always run smoothly where it is picked up by the succeeding writer. It is a story of periods, each period being treated practically as complete in itself, with scant reference to what has gone before or what is to follow. I laid down the volumes with the wish that Professor Commons had written it all and had given credit in footnotes and preface to his assistants, just as they have so frequently done to others upon whose monographs, published and unpublished, they have so freely drawn. Greater continuity could have been secured thereby. We would have had a master treatment of all the materials by Professor Commons, not as an adviser and collaborator, but as the actual writer and interpreter of every part of the interesting story.

I must also confess that the narrative left me "cold." It is factual and interpretative, but it fails to breathe the trials and sorrows, the spirit, the upward seeking, the "heart throbs" — if such a term may be used — of the labor movement. In these days of the twentieth century there is no need of making a study of labor, whether it be historical or otherwise, too scientifically and academically cold.

The treatment of the period from 1896 down to date is woefully inadequate, only one chapter being devoted thereto. It omits many extremely important events, and frequently refers to matters in a way that will make its contents understood only by those who have kept closely in touch with the labor movement of the last twenty years. As the chapter now stands, it had better not have been published. It is a distinct anti-climax to an otherwise excellent study.

Any careful reader will wonder why Appendix I (First dates on which trade societies appeared in New York, Baltimore, Philadelphia, and Boston, 1833–39) and Appendix II (Strikes, 1833–37) have been included in Part III, and why appendices giving similar data for other periods have not been added to each succeeding part. The scheme of beginning a new series

of footnote numbers in a chapter as soon as footnote 100 has been reached is somewhat confusing. The advisability of the extremely long topical headings at the opening of each chapter, sometimes extending over a full page, must also be questioned. A satisfactory index, or even the mere citation of sectional headings would have been just as effective.

In a detailed and comprehensive study like this, slight errors are bound to appear. The following are some that I noted in passing. In footnote 19, volume i, p. 237, Thomas Paine is listed as an atheist. He was not an atheist, believing, as he declared in his *Age of Reason*, in "one God and no more," and hoping "for happiness beyond this life." On p. 611 of volume i, the statement is made that "The most extraordinary advances in wages occurred in San Francisco [in 1853] which, however, must be considered exceptional." Then follows a statement of the wages paid at that time, altho no comparative data are given to show just how great the increase really was. The scale of wages then existing in San Francisco was admittedly high, and data available for that period show that some increases had been granted; but the increases were slight, and the wages actually paid did not approximate those existing a few years earlier. On p. 108 of volume ii it is stated that "No record is obtainable of the report of this Committee" [of the California Legislature on the advisability of changing the hours of the legal work-day]. The report in question can be found on p. 578 of California Assembly Journal, 16th Session. An error is also made in accepting Buchanan's statement (ii, 299) that B. G. Haskell, a labor leader in San Francisco in the eighties, never practised his profession as a lawyer, and that his philosophy was "state socialism combined with an opposition to either political action or violence for the present." Haskell did practise his profession for some time. His philosophy varied considerably from year to year, and represented an evolution from state socialism through socialism, philosophical anarchism, violence, communism, and just prior to his death, political action. Waltershausen, *Die nordamerikanischen Gewerkschaften*, p. 138, is cited in footnote 21, p. 311 of volume

ii, as authority for the statement that "In San Francisco the New York Amalgamated Trades and Labor Union had the right of making compulsory assessments until 1881." Waltershausen, however, credits the San Francisco Trades Assembly, not the New York central labor body, with that power.

The above errors, however, are inconsequential. These volumes are so excellently done that one can almost question the advisability of calling attention to such slight mistakes.

This study is unquestionably the greatest contribution thus far made to our literature dealing with the labor field in the United States. We still need a volume comparable to Webb's *Industrial Democracy*, and also one dealing more fully with the happenings since 1896. May we not hope for such books by these same authors or by others before many years have passed.

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NOTES AND MEMORANDA

INTERNATIONAL TRADE UNDER DEPRECIATED PAPER: A CRITICISM [1]

In the May, 1917, issue of the *Quarterly Journal of Economics*, Professor Taussig has examined with subtlety and penetration the effects of international trade between a borrowing country on an inconvertible paper basis and a lending country on a specie basis — understanding by the terms "borrowing" and "lending" not the contraction of public indebtedness but that "export of capital" which marks the economic intercourse of a creditor with a debtor country.

The question is presented by Professor Taussig as a condition conceivably realized in the commercial intercourse of the United States and Great Britain from 1862 to 1879. During this period — when Great Britain was on a gold standard and the United States under an inconvertible paper currency — "sundry individuals or corporations in New York borrow heavily in London and are entitled to receive funds from London." [2] Professor Taussig reaches the conclusion that the courses of prices in the trading countries under the assumed conditions would be precisely the opposite from that which we should expect under specie conditions:

> The borrowing country, the United States, which under a specie régime would experience rising money prices and rising incomes, has

[1] Last summer while in the Adirondack woods I read Professor Taussig's paper on "International Trade under Depreciated Paper: A Contribution to Theory" in the Quarterly Journal of Economics (May, 1917) with great enjoyment but with less intentness than its texture required. Months later I took it up again, this time for study — and eventually found myself in sharp disagreement with its conclusions. The doctrinal importance, as well as the practical significance of the issues which Professor Taussig has so acutely discussed will perhaps justify even the belated appearance of this dissent. — J. H. H.

[2] P. 382.

instead a lower range of prices, tho with stationary money incomes. Great Britain, on the other hand, should under normal conditions have lower prices and lower money incomes; yet the foregoing analysis leads one to predict higher prices with stationary incomes.[1]

Professor Taussig makes clear that his conclusions represent a theoretical expectation, in that they are attained by "rarified analysis," working with an "hypothetical isolation of causes." He sets forth with great clearness — there is nothing better in the formal literature of economic methodology — the importance and practicability of "partial verification" of his tentative conclusions. The economic fraternity will rejoice that a scholar of peculiar competence intends at some future time to undertake the task which he now describes as feasible — "to ascertain what in fact happens, and to observe whether the course of events accords with theoretical deduction."[2]

Regarded, however, only as a theoretical deduction — "refined reasoning of a most abstract character" — it seems to me that error lurks in Professor Taussig's argument, and that his hypothetical conclusions call for amendment. To make this clear is the purpose of the following pages.

I

The starting point of Professor Taussig's analysis is the inference that if both borrowing and lending countries are on a gold basis, and if trade between them is at equilibrium, the loan transaction will be accompanied by a movement of gold. This conclusion I take to be erroneous.

Professor Taussig sets forth explicitly his assumption that

> foreign trade between the two countries is simple and is at equilibrium — that there are merchandise transactions only, and that the specie value of the imports balances the specie value of the exports.[3]

and similarly his contention as to a movement of gold from the lending to the borrowing country

[1] P. 399. [2] P. 402. [3] Pp. 381, 382.

If both Great Britain and the United States were on a gold basis, American borrowings in London must result in a flow of specie from Great Britain to the United States.[1]

or, more succinctly,

under a gold régime, the outcome must be a flow of specie from the lending to the borrowing country.[2]

With instinctive caution, Professor Taussig inclines to qualify the certainty of such a flow of specie. He assumes, that "neither country produces gold,"[3] and he excludes, in unexceptional manner, the possibility that the lending country may deliberately endeavor "to link loans directly with commodity exports."[4] He goes even so far as to venture that: "The flow will not necessarily take place; possibly there will be none at all."[5] And in any event, "such flow as does take place is not likely to be equal in volume, either in the very first stage or later, to the amount of the loan."[6] But eventually he reaches the definite conclusion — upon which his subsequent reasoning rests: "it can be said almost with certainty that some specie movement there will be."[7]

The course of events leading up to this gold movement, Professor Taussig describes, as follows:

the increase in remittances from London to New York will cause a demand for New York exchange in London. New York exchange will rise in London, sterling exchange will fall in New York. But in this situation — both countries on a gold basis — the fluctuations in foreign exchange will necessarily be confined within the gold points. Specie will flow from London to New York.[8]

It is, however, clear that if trade between the two countries before the borrowing operation "is simple and is at equilibrium"[9] in the sense that "the specie value of the imports balances the specie value of the exports"[10] with no adjusting flow of gold — this is but another way of saying that the

[1] P. 391.
[2] P. 394.
[3] P. 391n.
[4] P. 392.
[5] P. 391.
[6] Ibid.
[7] Ibid.
[8] P. 394.
[9] P. 381.
[10] Pp. 381, 382.

equation of international demand has been established and that the stock of gold is neither redundant in the one country nor deficient in the other. Were it otherwise there would have been, contrary to assumption, no such equilibrium but in lieu thereof a movement of gold from country to country, until in accordance with the theories of international value and the territorial distribution of the precious metals the equation of international demand had again been attained.[1]

Under the assumed circumstances, of equilibrium and equation, the borrowing transaction would of itself induce no gold flow. From the day of Ricardo it has been agreed that "specie will be sent abroad to discharge a debt only when it is superabundant; only when it is the cheapest exportable commodity";[2] or, in more compact form: "The exportation of the coin is caused by its cheapness, and is not the effect, but the cause of an unfavorable balance."[3]

There has been, indeed, historic controversy over certain implications of the doctrine that "a country will not export bullion instead of goods unless there is an inflated circulation," with echoes as late as Mill and Walker.[4] But I assume that Professor Taussig does not refer to these qualifications and that he does not, in this connection at least, dissent from the Ricardian contentions that a flow of gold arises "only from the comparative deficiency of the currency of the importing country, which there causes its superior value,"[5] and that specie "is exported to *find* its level, not to *destroy* it."[6]

With exports exactly balancing imports, as Professor Taussig assumes, there would have been no disproportion in the amounts of gold in the two countries before the lending operation. There would have been nothing in the immediate borrowing transaction to bring about such disproportion. And there would have been no economic motive to induce a

[1] Cf. Bastable, Theory of International Trade (4th ed., 1903), pp. 54, 55.

[2] The High Price of Bullion (3d ed., 1810), p. 14.

[3] Ibid., p. 12.

[4] Principles of Political Economy (1848), Bk. III, ch. viii, 4; Money (1883) pp. 469–470.

[5] The High Price of Bullion, p. 12.

[6] Ibid. (4th ed., 1811), p. 72.

flow of specie. In order for the transaction to be followed by a movement of gold in the manner supposed by Professor Taussig, it is necessary to assume that there be relative excess of specie in the lending as compared with the borrowing country, and this disproportion be in process of correction by a flow of gold antecedent to and independent of the loan.

The only other theoretical possibility of a gold movement in connection with the borrowing process would be in consequence of an explicit stipulation for gold deliveries. Such an arrangement — described in market phrase as a "special transaction" and illustrated in the "brutal" exhibits of "monetary barbarism" attending our imports of gold from Europe in the panic of 1907 — may reasonably be neglected in this connection in the light of Professor Taussig's exclusion of the policy of "linking loans directly with commodity exports" referred to above.

What may be conceived as really taking place is that the loan transaction will entail an increase in the demand for New York exchange in London and an increase in the supply of sterling bills in New York. New York exchange will rise in London and sterling exchange will fall in New York. These fluctuations will, however, be safely within the gold points and no specie will flow from London to New York. In other words, the lending country will by the acceptance of the borrowing country's obligations have established a debit against itself. But this debit will be liquidated not by an efflux of gold — this being contrary to the assumption that the equation of international demand has been established — but by an export of the relatively cheaper commodities (selected in accordance with the principle of comparative cost) from the lending to the borrowing country.

It remains only to refer to the later effect of the borrowing transaction upon the movement of gold — an effect identical with the influence of a poor harvest upon the exchanges pointed out by Ricardo in rejoinder to the strictures of the *Edinburgh Review* in 1811. The lending country having been deprived by exports of a part of its commodities would thereafter require a reduced amount of circulating medium. Re-

verting to Ricardo's phrases: "The currency which was before equal to her payments would now become superabundant and relatively cheap," [1] in the same proportion to the exported commodities which the entire circulating medium of the country bore to the stock of commodities and services which it circulated. The exportation of this sum, therefore, "would restore the value of her currency to the value of the currencies of other countries" [2] — and a movement of gold to this extent might ultimately be expected. This is a very different phenomenon from the direct and immediate efflux of specie which figures in Professor Taussig's argument.

It is necessary to qualify in the same manner what may be reasonably interpreted as Professor Taussig's assumption as to what happens in the case of the loan transaction taking place with the borrowing country under a paper régime. Professor Taussig indeed contends that under such circumstances, with trade between the two countries at equilibrium, there would be no movement of gold. But this seeming identity of opinion is merely a doctrinal coincidence. For Professor Taussig's conclusion rests not upon any recognition that with trade at equilibrium there will be no movement of gold under a paper régime any more than under a specie régime, but upon the assumption — which we shall hereafter find erroneous — that the loan transaction under the paper régime will not draw gold from the lending country altho it will do so under the gold régime. Dual error leads to correct conclusion.

The same forces which discourage a movement of gold in connection with a loan transaction under a specie régime, when trade between the two countries "is simple and is at equilibrium," will operate with like result under a paper régime. Such a result will attend even tho one country be on a gold basis and the other on an inconvertible paper basis, as long as the amount of paper be not in excess of the amount of gold which the country would normally tend to retain as its circulating medium, were it on a specie basis. In

[1] The High Price of Bullion, p. 74. [2] Ibid., p. 75.

such event, prices and exchanges in the two countries will be as under a specie régime. There will be no premium on gold in the paper country, its foreign exchanges will suffer no fall from the parity which would have existed were its circulating medium constituted of gold instead of paper, and a loan transaction will — for reasons analogous to those set forth above in connection with the specie régime — result in no movement of gold. More than this, if the paper of the borrowing country be not only inconvertible but become redundant and depreciated, there will develop a premium on gold, measuring the extent of such depreciation, and a corresponding fall in the foreign exchanges. Trade between the two countries will resume, and a new equilibrium will be attained. As long as this equilibrium continues, a loan transaction will induce no flow of gold. The equilibrium will be briefer and less stable; but until it be actually disturbed borrowing and lending will compel no flow of specie.

To establish with theoretical exactness the possibility of a gold movement, it is necessary to assume not that the trade between the two countries "is simple and is at equilibrium," but that the equation of international demand is disturbed. The specie country may receive an addition to its gold or the paper country may contract its note circulation; or crops may be deficient in the gold country, or exceptionally bountiful in the paper country. If at this juncture, with the equation no longer realized, the loan transaction be consummated — there will result a movement of gold from the lending specie country to the borrowing paper country.

II

The larger error of Professor Taussig's deduction has to do not with the cause of gold movement but with its effect — upon prices and incomes in the borrowing and in the lending countries, respectively, in the event (*a*) of both countries being upon a specie basis, and (*b*) of the borrowing country being upon an inconvertible paper basis. First, as to prices.

Professor Taussig contends, it will be remembered, that the loan transaction under the specie régime, will cause prices to fall in the lending country and to rise in the borrowing country — in harmony with the classical doctrine of international trade; but that under the paper régime this operation will cause prices to rise in the lending country and to fall in the borrowing country. I am unable to agree that any such diametrical opposition exists as to the two régimes.

Let us review the sequence of events that may be expected to develop, first, under the specie régime; thereafter, under the paper régime. To avoid any complication growing out of Professor Taussig's inference as to an efflux of gold from the lending to the borrowing country in connection with the loan transaction — both countries being on a specie basis, with trade between the two "at equilibrium" — let us assume that such gold is secured by the borrowing from the lending country by "special transaction." This assumption is a counterpart of that made by the older economists that the normal distribution of gold has been disturbed by a deficient harvest in one country or by a newly discovered gold mine in the other. In both cases the conditions essential to Professor Taussig's analysis are present without complicating circumstance — a withdrawal of specie from one country and its transfer to another, the antecedent state of prices and exchanges having been that essential to the maintenance of the equation of international demand.

Under such circumstances, the results that may be expected to follow — as held by a succession of writers on the theory of the exchanges from William Blake to Viscount Goschen — are that in the lending country gold will be exported, prices will fall, imports will decline and exports increase, the stock of goods in the country will be reduced and prices will rise again. Conversely, in the borrowing country there will be an influx of gold, prices will rise, imports will increase and exports decline, the stock of goods in the country will be augmented and prices will fall again. The series of movements will thus end with the rate of exchange again at parity, trade between the two countries again at equilibrium, and the

equation of international demand again attained. With this sequence I take Professor Taussig to be in agreement.

If now we assume the United States to be on an inconvertible paper basis and Great Britain to remain on a specie basis the same general results may be expected to follow as when both are on a specie basis — with the qualifications that the lending country is likely to export bullion instead of specie and that the influx of such bullion or specie in the borrowing country will be registered in the form of decline in the premium of gold, appreciation of the gold value of paper money and rise in gold prices.

The course of events will thus be — in the lending country gold bullion will be exported, prices will fall, imports will decline and exports increase, the stock of goods will be reduced and prices will rise. Conversely, in the borrowing country, there will be an influx of gold bullion, the premium on gold will fall, gold prices will rise while paper prices remain stationary, imports will increase and exports decline, the stock of goods in the country will be augmented and prices, both gold and paper, will fall without, however, affecting the premium on gold or the rate of the exchanges.

From this sequence Professor Taussig's conclusions are in marked disagreement. He maintains that in the lending country, under the assumed conditions, prices will be higher instead of lower, and that in the borrowing country they will be lower instead of higher. This seeming opposition appears to me mistaken, and to result, primarily, from the erroneous assumption in Professor Taussig's argument that the loan transaction which in the specie régime will cause a movement of gold will in the paper régime cause no such movement.

As to this assumption that there will be no gold movement, Professor Taussig's language is again explicit:

> Specie could not flow, for example, from Great Britain to the United States between 1862 and 1879. If it did move, it would be simply as a commodity. Gold sent from Great Britain to the United States could not enter into circulation, but would be bought for use in the arts, or for sporadic payments stipulated to be made in specie. Its influx could not affect general prices.[1]

[1] P. 396.

or, more briefly,

There is no flow of specie into Great Britain or out of Great Britain.[1]

It is evident, however, that the loan transaction — effected under conditions, corrected as above — would induce a flow of gold under a paper régime as certainly as under a specie régime. There will be, as before, an increase in the demand for New York exchange in London and an increase in the supply of sterling bills in New York. New York exchange will rise in London and sterling exchange will fall in New York — as compared, not indeed with such a par of exchange as obtained in the specie régime, but with that par of exchange which, prevailing prior to the loan, registered the depreciation of the paper currency and the extent of the gold premium. The actual rate of this preëxistent par of exchange will be determined in accordance with the classic formula of the Bullion Report:

it is manifest that the Exchange between two countries is *at its real par*, when a given quantity of Gold or Silver in the one country is convertible at the market price into such an amount of the currency of that country, as will purchase a bill of Exchange on the other country for such an amount of the currency of that other country, as will there be convertible at the market price into an *equal* quantity of Gold or Silver of the same fineness.[2]

There will moreover be limits within which the prevailing rate of exchange can move above or below such par of exchange, as real even though perhaps not as precise, and certainly not as stable, as the analogous "gold points" of the specie régime. Whenever New York exchange in London rises so far above the theretofore quoted rate as to make it more profitable to export gold in settlement — and in corresponding manner as to sterling exchange in New York — there will be a movement of gold from London to New York. Were it otherwise the fluctuations would depend entirely on the extravagances of supply and demand. Those having remittances to make would be "entirely at the mercy" of such as had exchange to sell and "if the demand for bills

[1] P. 398.

[2] Report (8vo ed., 1810), p. 32.

exceeds the supply, there is theoretically no limit whatever to the price of bills," [1] other than by the purchase and shipment of produce even at most disadvantageous terms. This uncontrolled condition is exactly realized if the specie country effectively prohibits the purchase or export of gold bullion or specie or the paper country effectively prohibits its import or sale.

The foregoing conclusions are, I believe, in harmony with accepted opinion and with formal doctrine in the matter of the "paper exchanges." From the day of Adam Smith [2] at least, the distinction between "real exchange" and "computed exchange" has figured in economic writing. The Bullion Report of 1810 and the controversial literature of the period — Boyd, King, Thornton, Foster, Mushet, Blake, Huskisson, Malthus, and Ricardo — definitely established the use of the term "nominal exchange" to register variations in the relative value of the currencies of the two countries — whether due to debased coins or to a silver standard or to depreciated paper currency — just as "real exchange" registers variations in the demand and supply of foreign bills and "computed exchange" incorporates both causes of variation.[3] "There is no difference, in its influence over the exchange," summarized McCulloch, "between a degraded metallic and a depreciated paper currency. And when a country with either the one or the other has any dealings with another whose currency is of its full value, the exchange is nominally against her to the extent of the degradation or depreciation." [4]

More perhaps than any single doctrine of the classical political economy was this theory of the paper exchange subjected to verification. The course of trade under the French assignats, under the paper currencies of the continental powers, under the depreciated circulation of the American colonies, the intercourse between Great Britain and Ireland from 1797

[1] Goschen, The Theory of the Foreign Exchanges (1861), pp. 74, 75.

[2] Wealth of Nations (1776), Bk. IV, ch. iii.

[3] Bullion Report, p. 23. The clearest exposition is in Blake, Observations on the Principles which Regulate the Course of Exchange. (1810.)

[4] "A Treatise on the Circumstances which Determine the Course of Exchange [1820]" in Treatises on Economical Policy (2d ed., 1859), p. 99.

to 1804, and the historic events of the Bank Restriction — were all analyzed and ultimately marshalled in support of the principle. Mill reënunciated the doctrine with characteristic lucidity,[1] and Goschen, in 1861, gave it the model form [2] — "sufficiently precise in his arguments as not to offend the scientific theorist, and sufficiently diffuse in his illustrations and explanations as to make himself understood by the general and uninitiated reader" — which all later writers [3] have been in the habit of repeating or appropriating:

> The bills on a given country fluctuate in value, in proportion to the extent to which the prices of all purchaseable articles — bullion included — are raised by the depreciation of the currency; in other words, in proportion to the discount of the paper money, or the premium on gold. Beyond that proportion, the fact of the depreciation will not cause them to deviate; for otherwise the creditor of any sum which is payable in the inferior money, rather than submit to a further sacrifice in the exchange, would request his debtor to send him gold for the amount of his debt, notwithstanding the premium upon it, as under the hypothesis such a premium would be less than the loss entailed by settling the transaction by the sale of a bill.

Once admitted that gold will be exported from the lending country to the borrowing paper country in train of a loan transaction just as certainly as tho the borrowing country were on a specie basis — the further effects upon prices in the lending country will be the same as tho the borrowing country were on a specie basis. Whether the gold exported be specie or bullion — prices will tend to fall, imports to decline and exports to increase, the stock of goods in the country to diminish and prices to rise again. The apparent opposition thus disappears and complete parallelism is established between what may be expected to develop in the lending country, according as the borrowing country is on a gold basis or under a paper régime.

[1] Principles of Political Economy, Bk. III, ch. xxii, 3.

[2] The Theory of the Foreign Exchanges, pp. ix, 1–62, 69, 70.

[3] Cf. Clare, The A B C of the Foreign Exchanges (1901), pp. 143–160; Bastable, The Theory of International Trade (4th ed., 1903), pp. 88, 89; Brown, International Trade and Exchange (1914), pp. 142–144; Spalding, Foreign Exchange and Foreign Bills (1915), pp. 118–120. Curiously, Escher, Elements of Foreign Exchange (1913) and Foreign Exchange Explained (1917) omits all reference to "the paper exchanges." So too, Withers, Money Changing (1913) uses the term, but glosses the matter.

Turning now to the borrowing country, the same considerations — the fall of sterling exchange consequent upon the offering of London bills, etc. — would induce an import of gold under a paper régime as certainly as under a gold régime. This influx might be in the form of bullion instead of specie and by assumption it would clearly not affect the volume of the circulating medium. But the sequence of events would nevertheless be analogous to that to be anticipated under a specie régime: a fall in the gold premium and a fall in sterling exchange, with stationary paper prices and rising gold prices. Thereafter, would follow a decline in the volume of exports and an increase in the volume of imports, an increase in the stock of goods with the further sequel of falling prices, both gold and paper, without change in the gold premium or the foreign exchanges. Concisely as to price changes, the effects on the prevailing paper currency would be: stationary prices, in the first instance; lower prices, thereafter — accompanied, in both stages, by an appreciation (relative to gold) of the paper money.

With this conclusion Professor Taussig is in seeming agreement. He infers that the borrowing country will have "a lower range of prices," and this we have found, as noted above, will be the final consequence. But the identity is again apparent not real. For Professor Taussig maintains that under the specie régime the borrowing country would experience rising prices. Such indeed would be the case — at the stage immediately prior to the alteration in imports and exports. But at the later stage, immediately following the alteration in imports and exports — conveniently distinguished as "final" in contrast to "preliminary" — the effect will be, as we have seen, falling prices. The price changes at corresponding stages under the paper régime will be stationary, as the preliminary effect; declining, as the final effect. In speaking of rising prices under the specie régime, Professor Taussig refers to what I have described as the preliminary effect — the analogue of which under the paper régime will be stationary prices. In speaking of lower prices under the paper régime, Professor Taussig refers to what I have described as the final

effect — the analogue of which under the specie régime will be rising prices. In other words, the opposition which exists between the effects suffered by the borrowing country under a specie and under a paper régime respectively — an opposition, it might be interjected entirely resolvable into an appreciation in the gold value of the paper money — is notably different from that inferred by Professor Taussig. Whereas Professor Taussig's reasoning maintains that there will be rising prices under the specie régime and falling prices under the paper régime, the actual contrasts will be, at the preliminary stage rising prices under the specie régime and stationary prices under the paper régime, and at the final stage, falling prices under the specie régime and falling prices under the paper régime.

Schematic arrangement will make clearer this "lack of proper synchronization" in Professor Taussig's reasoning. The sequence of events following the loan transaction will be, under the specie régime, as follows:

GREAT BRITAIN (*lending, gold basis*)	UNITED STATES (*borrowing, gold basis*)
1. Efflux of gold.	1. Influx of gold.
2. Falling prices.	2. Rising prices.
3. Reduced imports; increased exports.	3. Increased imports; decreased exports.
4. Less goods.	4. More goods
5. Rising prices.	5. Falling prices.

and, under the paper régime, as follows:

GREAT BRITAIN (*lending, gold basis*)	UNITED STATES (*borrowing, inconvertible paper basis*)
1. Efflux of gold.	1. Influx of gold.
2. Falling prices.	2. Fall in gold premium; fall in sterling exchange; stationary paper prices; rising gold prices.
3. Reduced imports; increased exports.	3. Reduced exports; increased imports.
4. Less goods.	4. More goods.
5. Rising prices.	5. Falling gold prices; falling paper prices; stationary gold premium; stationary exchange.

In stating the effects of the loan transaction to be, under the gold régime, lower prices in the lending country and rising prices in the borrowing country, Professor Taussig obviously refers to the stage immediately prior to the movement of exports and imports — indicated in the tabular statement above as (2). It would be quite as proper to base the comparison upon the results attained at a later stage in the series — namely that subsequent to the movement of exports and imports, indicated in the tabular statement as (5) — and to describe the effects experienced as exactly the converse, namely, rising prices in the lending country and lower prices in the borrowing country. The comparison may be made, indifferently at either stage, and Professor Taussig, following more common usage, has used that subsequent to the gold movement. The important consideration is that in contrasting the effects of the loan transaction in each country under a specie and under a paper régime, respectively, the comparison be instituted at the same stage in each case — both at (2) or both at (5).

It is precisely this which Professor Taussig has failed to do in comparing the results of the loan transaction upon the borrowing country, in the two régimes. He has contrasted the effect suffered at stage (2) under the gold régime — higher prices — with the effect suffered at stage (5) under the paper régime — lower prices.

Professor Taussig's deduction thus not only presents an unsound departure from the classical doctrine as to the parallelism in price changes suffered by the same country under the two régimes; but it also involves invalid dissent from accepted opinion as to the opposition in price changes suffered by the two countries under the same régime.

III

Professor Taussig's inferences as to the effect of the loan transaction upon money incomes in the two countries under the several currency régimes, are shot with the same errors. Concurring with accepted opinion that the lending country

under a gold régime will have lower money incomes, Professor Taussig contends that under the paper régime there will be stationary incomes:

> Money incomes remain the same. There is no flow of specie into Great Britain or out of Great Britain. But with the same quantity of money, and with less commodities in circulation, prices rise in Great Britain. Money incomes, however, remain the same.[1]

Obviously, this conclusion rests entirely upon the assumption that the loan transaction will cause no movement of gold from the borrowing country under the paper régime, altho it will cause such movement under the gold régime — an assumption which, as shown above, is unwarranted. Moreover, it institutes a comparison between money incomes, under the gold régime, at the preliminary stage — (2) of my tabular exhibit — with money incomes, under the paper régime, at the final stage — (5) of my tabular exhibit. If the fact of such gold movement be admitted and the comparison be instituted at like stages, the course of money incomes in the lending country under the two régimes would seem to be entirely analogous.

Similarly, Professor Taussig agrees that the borrowing country under the specie régime will have rising money incomes. But he maintains that under a paper régime there will be stationary money incomes. Thus, under such circumstances:

> There are more commodities than before; there is no more money. . . . Prices indeed are falling in the United States; but money incomes are *not* falling. The collective money income of the people of the United States is no less than it was before, being simply the resultant of a stationary supply of money.[2]

This involves like error in comparing the course of money incomes at the preliminary stage under the specie régime with their course at the final stage under the paper régime. The penalty due for the assumption of no gold movement is avoided by the recognition of its effect in this connection — fall in sterling exchange and decline in gold premium. Under such circumstances money incomes in terms of the prevailing

[1] P. 393. [2] P. 397.

paper currency will indeed be stationary; but the value of this paper currency, and consequently of the money incomes in terms of gold will have increased. It would be interesting to examine the significance of such appreciation, but this lies beyond the scope of the present critique.

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A REJOINDER

I SHALL confine my comments on Professor Hollander's strictures to the case which he himself chiefly considers, namely, that of lending operations between countries both of which are on a specie basis. It is somewhat a matter of surprise to me that such operations need further elucidation; for the "pure" theory of international trade on this range of topics might be supposed to have been settled. The paper which Professor Hollander criticizes was designed to analyze mainly the more difficult and unsettled case in which one of the countries is on an inconvertible paper basis, and the normal specie conditions were considered only by way of introduction.

Let it be borne in mind that both Professor Hollander and myself are discussing the accepted (Ricardian) theory, and that neither of us undertakes here to correct or to verify it. The complexities of modern international transactions and modern monetary conditions may compel revision of the traditional reasoning. But these are matters that do not touch the questions here under debate.

The basis upon which Professor Hollander's reasoning rests is indicated in his statement of my own starting point: "the starting point of Professor Taussig's analysis is the inference that if both borrowing and lending countries are on a gold basis, and if trade between them is at equilibrium, the loan transaction will be accompanied by a movement of gold. This conclusion I take to be erroneous." On this

cardinal point I am convinced, for my part, that Professor Hollander is in error.

Professor Hollander believes that specie cannot flow out of a country unless the stock of gold in it is "redundant." In his opinion there must be a "relative excess of specie." Gold will not flow except (quoting Ricardo) "when it is superabundant." Only if there is a "special transaction" (by which is meant a set of dealings in which it is specifically stipulated that gold shall be remitted) will the metal move. It is commodities that will move from the lending countries to the borrowing; and they will move at once, without any previous flow of specie.

Apparently Professor Hollander has a general belief that specie will flow from country to country only if something has previously happened which has altered in one of them the relation between the quantity of the circulating medium and the volume of commodities exchanged. There must be (so his reasoning seems to run) either increased production from the mines, or an issue of paper money, or a decrease in the volume of commodities exchanged in the country — some influence of this sort, which serves to alter the general price level, brings about what he calls a redundancy of the currency, and so causes specie to move.

Is it not in plain disregard of familiar facts, and in plain disregard of accepted theory, to assume that gold can flow only under conditions of this sort? Let one case be recalled, a case which plays so large a part in Mill's well known chapters on the theory of international value. Suppose a change in the conditions of demand — simply this and nothing more. Country A and country B are trading. In country B the demand for commodities obtained from country A becomes less; in the language which later theory has taught us, the demand schedule for the commodities shifts in B to the left. Country A no longer can send to country B, at the same prices, as many commodities as before. The difference must be made up by remittance of specie. Gold flows from country A to country B, solely in consequence of the change in the conditions of demand. That flow of specie continues until (fol-

lowing the well known course of reasoning) a new equilibrium is reached between country A and country B. Permanently lowered prices result in A, permanently raised prices in B. There has been no "redundancy" of currency in A; nothing whatever to cause the outflow of specie except the change in demand. Yet, assuming this to be the sole change that disturbs the previous equilibrium, the movement of specie must take place.

Precisely the same happens if tourists from country A betake themselves in large numbers to country B and spend money in the latter. Remittance from A has to be made in some form or another, and the remittance will take first the form of specie. As we all know, if this sort of expenditure goes on year after year, it brings about eventually an increase of commodity exports from country A and a so-called favorable balance of trade. But that balance of trade does not set in automatically. It ensues as the *result* of a flow of specie and of consequent changes in the price levels.

Other causes for remittance, bringing the same consequences, can be readily adduced. If a large number of persons in country A should remit to their relatives in country B, in order to enable the latter to immigrate into country A, and if there were a steady continuance of remittances of this sort, there would ensue in the end an increased volume of exports from country A; but here again the first stage would be a flow of specie out of that country. The reader will observe that these two cases (tourist and immigrant remittances) represent what in fact has taken place as regards the United States during the last generation or two.

Coming now to the particular subject in hand, loan transactions are precisely of the sort just indicated; that is, they are transactions in which the flow of specie takes place without there having been any previous "redundancy." Surely it cannot be maintained that such transactions would bring about a movement of commodities from the lending country merely through the disturbances of foreign exchange within the limits of the gold points. Fluctuations in exchange rates within these limits are never more than a minor factor as

regards commodity exports and imports. Further, it is to be remembered — I trust the assumption is indicated with sufficient clearness in the article criticized by Professor Hollander — that the lending operations are supposed to be continuous; not sporadic, but going on through a series of years. This being the case, we have a situation which, so far as the flow of specie is concerned, is precisely like that ensuing because of a change in demand, of tourists' remittances, and the like. The first stage in the establishment of a new equilibrium is a flow of specie, without previous "redundancy."

On still another phase of lending transactions between specie countries I find myself differing with Professor Hollander. In the tabular statement which he gives on page 687, the sequence of events in the lending country is stated as follows (gold being supposed by him to move, in the way of a supposed exception, in consequence of a "special transaction"):

1. Efflux of gold.
2. Falling prices.
3. Reduced imports; increased exports.
4. Less goods.
5. Rising prices.

In this the fifth item is open to criticism. The assumption is that after a period of falling prices there comes a succeeding period of rising prices; in other words, that the stage of lowered prices is not definitive, but is followed by something in the nature of a rebound. I am convinced that on this point Professor Hollander is mistaken, and that the mistake arises from an inadequate analysis of the theoretical situation. In all such cases as have been referred to in the preceding discussion — a change in demand, tourist expenditure, immigrant expenditure, lending operations — a *definitive* change in the relative price levels takes place. It is a common error, in dealing with this phase of economic theory, to suppose that when such a fall of prices takes place (say from a change in demand) it is followed by an increase of exports, and then by a rebound in the nature of a rise in prices. No; a new equilibrium is established, with commodity exports from the

lending country regularly exceeding its imports, no further flow of specie, prices lower once for all in this country, and higher once for all in the borrowing country.

At a later stage in the lending operations — quite a different stage — there will indeed presumably come a "rebound." This turn will appear much later, after the lending country has long continued its investments, and when finally the interest received on old loans begins to exceed the principal remitted on loans newly made. Then (in the course of the transition leading to this new stage) specie will flow the other way — toward the lending country. Prices will rise in it, its imports will increase, and eventually an equilibrium of just the reverse kind will be attained: commodity imports will exceed the exports, and there will be an "unfavorable" balance of trade. All this is familiar enough in theory. In practice the lending operations do not take place with the smoothness, continuity, regularity, which may be assumed for the purposes of theory; nor does the eventual reversal of trade conditions take place with the assumed gradual and easily discernible transition. But, in the large, these several stages can be made out in the history of Great Britain's international trade during the nineteenth century. All this, however, relates to a "rebound" of quite a different kind from that sort of early rebound which Professor Hollander's reasoning implies.

Differing as I do on the comparatively simple case of transactions between specie countries, it does not seem necessary to follow Professor Hollander on the more complex case of transactions between a specie country and a paper country. I find myself unable to accept his reasoning on many aspects of this case also. But the conversant reader will judge for himself; and without further comment the decision on the merits of this friendly debate may be left to turn on the plain and simple case with which both of us start.

F. W. TAUSSIG.

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